

**AWARD NUMBER:** W81XWH-16-1-0062

**TITLE:** Refinement and Validation of a Military Emotional Intelligence Training Program

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**RECIPIENT:** University of Arizona  
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**REPORT DATE:** MAY 2017

**TYPE OF REPORT:** Annual

**PREPARED FOR:** U.S. Army Medical Research and Materiel Command  
Fort Detrick, Maryland 21702-5012

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REPORT DOCUMENTATION PAGE				Form Approved OMB No. 0704-0188	
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1. REPORT DATE MAY 2017		2. REPORT TYPE Annual		3. DATES COVERED 15 Apr 2016 - 14 Apr 2017	
4. TITLE AND SUBTITLE Refinement and Validation of a Military Emotional Intelligence Training Program				5a. CONTRACT NUMBER	
				5b. GRANT NUMBER W81XWH-16-1-0062	
				5c. PROGRAM ELEMENT NUMBER	
6. AUTHOR(S)  Dr. William D. "Scott" Killgore  E-Mail: killgore@psychiatry.arizona.edu				5d. PROJECT NUMBER	
				5e. TASK NUMBER	
				5f. WORK UNIT NUMBER	
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES)  University of Arizona 888 N. Euclid Ave. Tucson, AZ 85719-4824				8. PERFORMING ORGANIZATION REPORT NUMBER	
9. SPONSORING / MONITORING AGENCY NAME(S) AND ADDRESS(ES)  U.S. Army Medical Research and Materiel Command Fort Detrick, Maryland 21702-5012				10. SPONSOR/MONITOR'S ACRONYM(S)	
				11. SPONSOR/MONITOR'S REPORT NUMBER(S)	
12. DISTRIBUTION / AVAILABILITY STATEMENT  Approved for Public Release; Distribution Unlimited					
13. SUPPLEMENTARY NOTES					
14. ABSTRACT  The goal of the proposed project is to provide the Army with a brief, well-validated, internetbased training program for enhancing Emotional Intelligence (EI) and resilience skills. Addressing this need is crucial, as military personnel are often required to serve under dangerous and emotionally stressful conditions. Prolonged stress or exposure to very intense lifethreatening experiences, such as those encountered in combat or other hazardous duty deployments, can increase the risk of developing mental health problems including depression, anxiety, or post-traumatic stress disorder (PTSD). One possible way to minimize the effects of these stressful experiences on Service members is to strengthen their emotional flexibility, adaptability, and capacity to cope with adversity before they find themselves faced with such situations. To fill this need, we propose to provide the military with a web-based program that focuses on enhancing Emotional Intelligence (EI), a core set of trainable emotional skills that collectively include the capacity to understand, perceive, control, and use emotions effectively.					
15. SUBJECT TERMS Emotional intelligence, affect, training, web-based, resilience, neuroimaging					
16. SECURITY CLASSIFICATION OF:			17. LIMITATION OF ABSTRACT	18. NUMBER OF PAGES	19a. NAME OF RESPONSIBLE PERSON
a. REPORT	b. ABSTRACT	c. THIS PAGE			USAMRMC
Unclassified	Unclassified	Unclassified	Unclassified	137	19b. TELEPHONE NUMBER (include area code)

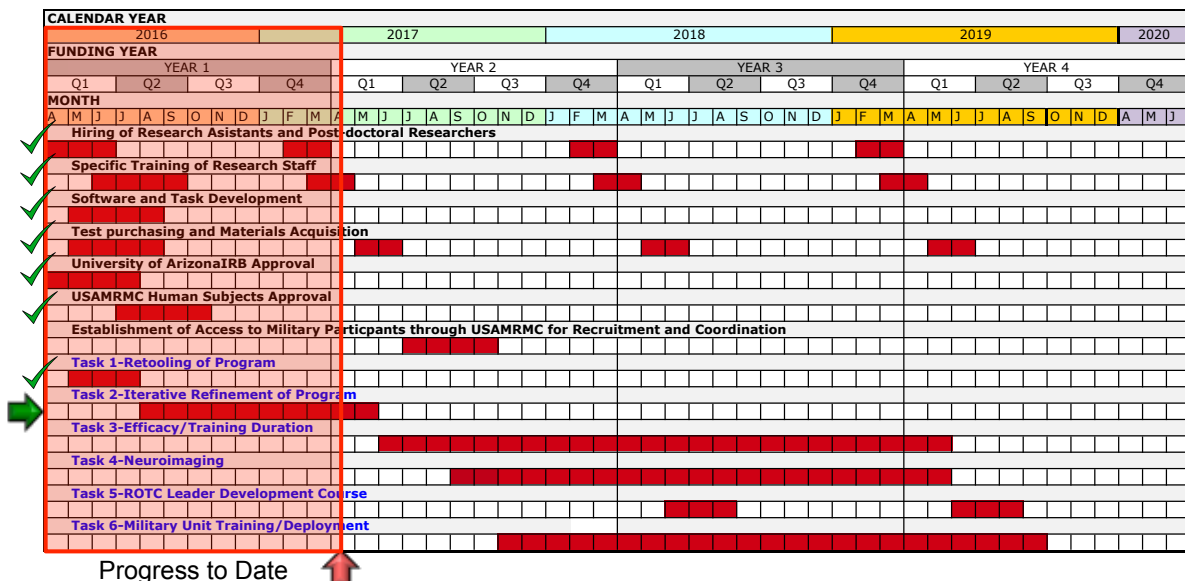
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**1. INTRODUCTION:** Narrative that briefly (one paragraph) describes the subject, purpose and scope of the research.

The goal of this project is to provide the Army with a brief, well-validated, internet-based training program for enhancing Emotional Intelligence (EI) and resilience skills. Addressing this need is crucial, as military personnel are often required to serve under dangerous and emotionally stressful conditions, oftentimes with limited support from friends and family for prolonged periods of time. Prolonged stress or exposure to intense life-threatening experiences, such as those encountered in combat or other hazardous duty deployments, can increase the risk of developing mental health problems including depression, anxiety, or post-traumatic stress disorder (PTSD). One possible way to minimize the effects of these stressful experiences on Service members is to enhance understanding of emotional processes and strengthen their emotional flexibility, adaptability, and capacity to cope with adversity before they find themselves faced with such situations. Accordingly, the goal of the present investigation is to provide the military with a web-based program that focuses on enhancing Emotional Intelligence (EI), a core set of trainable emotional skills that collectively include the capacity to understand, perceive, control, and use emotions effectively to solve problems and reach long-term goals. The present study is designed into 5 sequential Task Projects that will lead to the accomplishment of this goal, providing a fully developed and validated program for enhancing EI skills. Task 1 involves fleshing out the details of the proposed EI Training program with a group of experts in emotional theory and clinical intervention; Task 2 involves web-based design, programming, development, and iterative refinement of the program; Task 3 involves an efficacy study to determine the overall effects of the program and attempt to determine the optimal training schedule for use with the program; Task 4 will involve identifying the neural brain changes that occur when participants undergo the optimal version of the program; Task 5 will involve testing the effectiveness of the program for enhancing leadership and emotional skills in ROTC cadets during the summer Leader Development Course (LDAC); Task 6 will involve testing the effectiveness of the program for minimizing mental health issues in a sample of active duty military personnel during deployment or other stressful training exercise.

**Timeline: 4 year study**





**2. KEYWORDS:** Provide a brief list of keywords (limit to 20 words).

Emotional intelligence, affect, training, web-based, resilience, neuroimaging.

**3. ACCOMPLISHMENTS:** The PI is reminded that the recipient organization is required to obtain prior written approval from the awarding agency Grants Officer whenever there are significant changes in the project or its direction.

**What were the major goals of the project?**

According to the Statement of Work (SOW), the following major tasks were proposed:

**Major Task 1:** Retooling of Preliminary EI Training Program (Y1: Q1-3)

*Completed:* reconceptualization of the program has been completed.

**Major Task 2:** Iterative Refinement of EI Training Program (Y1: Q3-4, Y2: Q1)

*In progress:* internet-based training modules have been designed and rough drafts are complete. Programing and refinement of the modules is currently ongoing.

**Major Task 3:** Efficacy/Training Duration (Y2, Y3, Y4)

*Pending:* awaiting completion of development and refinement of modules.

**Major Task 4:** Identify Neuromechanisms (Y2, Y3, Y4)

*Pending:* awaiting data collection of Tasks 2 and 3.

**Major Task 5:** ROTC Leader Development and Assessment Course (Y2, Y3, Y4)

*Pending:* awaiting data collection completion of Tasks 2-4.

**Major Task 6:** Military Unit Training/Deployment (Y2, Y3, Y4)

*Pending:* awaiting data collection completion of Tasks 2-5.

**Major Task 7:** Process and Analyze Data

*Pending:* awaiting data collection completion of Tasks 2-6.

**What was accomplished under these goals?**

*For this reporting period describe: 1) major activities; 2) specific objectives; 3) significant results or key outcomes, including major findings, developments, or conclusions (both positive and negative); and/or 4) other achievements. Include a discussion of stated goals not met. Description shall include pertinent data and graphs in sufficient detail to explain any significant results achieved. A succinct description of the methodology used shall be provided. As the project progresses to completion, the emphasis in reporting in this section should shift from reporting activities to reporting accomplishments.*

- 1) Major Activities: Work completed in Year 1 has focused on two major goals: 1) study preparation and 2) initial design and development of the training program.

Preparatory activities involved hiring 3 new Research Technicians, a Study Coordinator, several undergraduate volunteer Research Assistants, and ensuring that all personnel were fully trained on all laboratory procedures and study specific procedures. Required equipment was acquired throughout Year 1, including Zephyr® Biopatches, various assessments and scales, and 7 rugged laptops. The computer hardware and software were obtained and checked for optimal use and ability to yield valid data. An online platform for data management, REDCap, was outfitted for the purposes of this study and extensively tested and refined to meet the study's needs after practice sessions were run and weaknesses identified.

During Year 1 of this project we have focused extensive effort on content and visual design of the modules for the Emotional Intelligence (EI) program. During this reporting period, the PI held regular meetings with several experts in emotion theory and clinical interventions. During these meetings, the team addressed the previously identified weaknesses in the pilot EI Training program and identified new strategies to implement in the current revision of the program. Once the general content areas were re-conceptualized, we hired a computer programming/web-training developer to assist in translating the content into an interactive internet training program. Throughout the year, our faculty collaborators, postdoctoral fellows, graduate student, research technicians, and study coordinator have actively worked on a near daily basis with the web development company to design new content for the program that will be interesting, engaging, and relevant for Service members. In Quarter 3, we tested out several aspects of content and made modifications to the program based on 4 iterative runs of the program. This resulted in enrollment of 40 participants. By the end of Year 1, we have translated the type of content we would like to include in our program into interactive and game-like scenarios and activities, some of which are currently under development or have been fully completed.

Specific Objectives: The primary objectives were to redesign the preliminary EI training program, and conceptualize, create, and iteratively refine the new EI training program.

- 2) Significant Results/Key Outcomes:

Training Program Development: We have made significant strides in finalizing the computer EI Training program. All major conceptual components have been redesigned. We have developed an organizational structure for the EI Training Program. Table 1 below outlines the general content areas of the program structure. The program itself is currently designed to involve approximately 12 hours of training content. This content is organized into seven major training domains, including 1) Foundational Knowledge of Emotions, 2) Knowing One's Own Emotions, 3) Motivation, 4) Managing Emotions, 5) Knowing others Emotions, 6) Managing Others' Emotions; 7) Empathy.

Overarching Program Goal	Objective(s)
Foundational Knowledge of Emotions	Describe the function and value of experiencing emotions Explain the physiological underpinnings of emotion Discuss how context informs emotional response
Knowing one's own emotions	Differentiate emotions within the emotional dictionary. Recognize and label their own emotions.
Motivation	Remember the potential benefits (interpersonal) of the ability to regulate Remember the potential hazard (PTSD) of the inability to regulate emotions.
Managing Emotions	Demonstrate motivation for practice in mindfulness. Recall the components of mindfulness. Identify own cognitive distortions Reframe cognitive distortions Recognize the state of mind (lense) from which they're acting Identify different types of emotion avoidance strategies they use Understand the consequences of emotion avoidance Identify EDBs in their life Plan counter behaviors to EDBs
Knowing others' emotions	Interpret other's emotions with awareness to own bias
Managing other's emotions	Identify the most adaptive and effective reaction for changing another person's emotions Describe the value of positively changing another person's emotions
Empathy	Demonstrate empathetic responses Demonstrate motivation to practice empathy

Table 1. Summary of content of the Emotional Intelligence Training (EI) Training Program.

The program modules are designed in a 3-tier organization structure. As shown in Figure 1 below, Tier 1 is focused on introducing the program, grounding emotional concepts in physiology (i.e., understanding how emotions are related to body sensations), self-efficacy, goal setting, and familiarizing the student with the Emotion Tracker (ET). This tier is linear in approach and requires the participant to complete all lessons in a prescribed order. Upon graduation to Tier 2, the student is introduced to the main ideas of EI, including the concepts of relaxation, mindfulness, and cognitive distortions (a.k.a., “thinking traps”). During this tier, the student is permitted greater flexibility in the order in which content areas are explored and learned. Finally, upon graduation to Tier 3, the student then gets the opportunity for greater self-exploration, with deeper dives into specific content areas with practice and improvement toward goals.

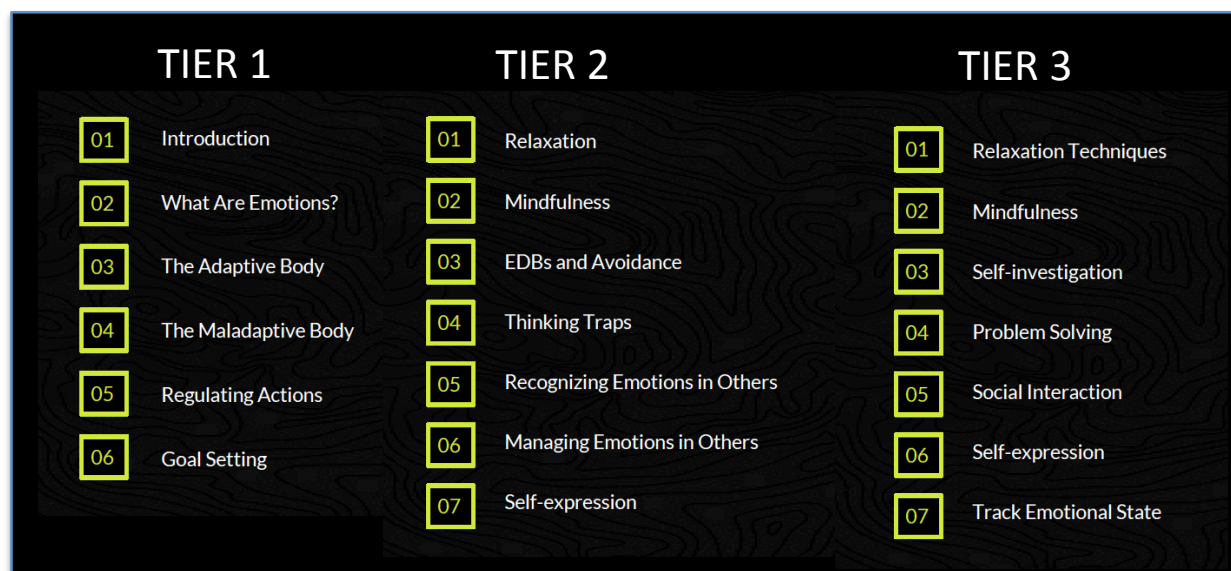


Figure 1. General 3-tiered structural organization of the EI training program.

A core element of the program will be the Emotion Tracker (ET). The ET will act as a type of self-monitoring simulator, similar to commercially available fitness trackers (e.g., Fitbit®). The ET will be learned early in Tier 1 and the student will have the opportunity to engage with the ET regularly throughout the program to monitor their thoughts, feelings, and behavioral reactions to various situations and stimuli. This component is still under development but will provide the user with a graphical interface that summarizes their current state and progress in emotional intelligence development.

Another key component of the training program is the use of the Reaction Cycle, shown in Figure 2. The reaction cycle is a reoccurring theme throughout the training program. It is a tool that illustrates the steps that occur before one chooses a behavior in response to a situation. The general concept is that emotions involve a cycle that begins with a situational context, an interpretation of the situation or event, a consequent emotion, including bodily reactions, action tendencies, and focus of attention, and is followed by a behavioral response/reaction. This cycle is presented frequently as a learning tool throughout the program and will provide a scaffolding to help the student understand emotional processes better. Various situations and practice items will require the learner to apply the reaction cycle concept to current emotional experiences. This repeated practice of interpreting emotional situations through the concept of the reaction cycle will aid students in recognize the factors that contribute to their emotional experiences, what their emotions mean, and the consequences of such emotions on their behavior.

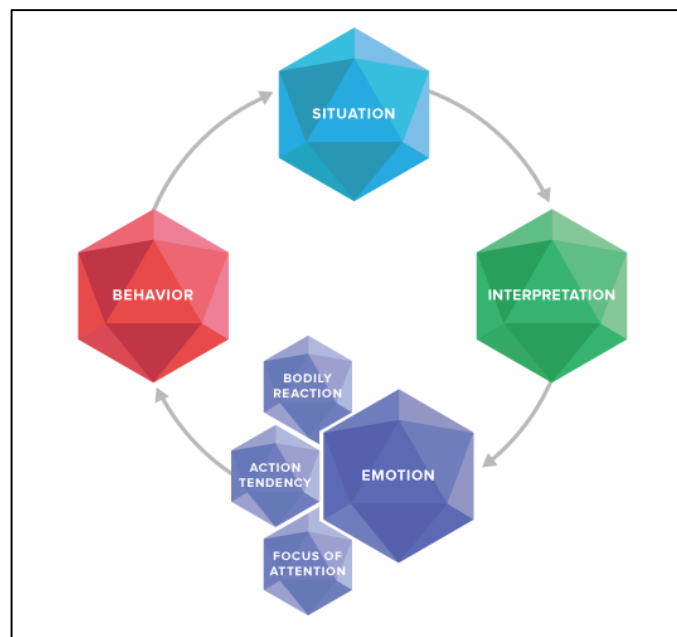
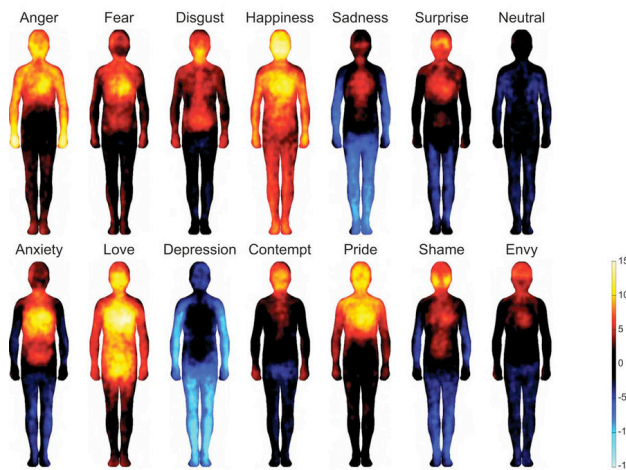


Figure 2. The Emotion Reaction Cycle

Another feature of the current program development is the Bodily Reaction Tool. This is an activity that helps learners to understand that experiencing an emotion can induce differing intensities of sensations in different parts of the body. Learners are asked where they feel different sensations in their body when they experience joy, anger, and sadness. The tool is still under development and refinement, but is based on existing literature that shows how and where in the body that emotions are generally felt. The tool will allow the learner to click on regions where a particular emotion is felt and to indicate increased or decreased sensation in that region. We are actively working with our graphic designers to create a more accurate depiction of how we experience emotions throughout our bodies. Figure 3 shows the evidence based body map figure and a preliminary beta version of the tool that is being developed for implementation in the program.

## Empirical Data for Body Emotion Sensations



Nummenmaa et al. (2013)

## Prototype Body Map Tool

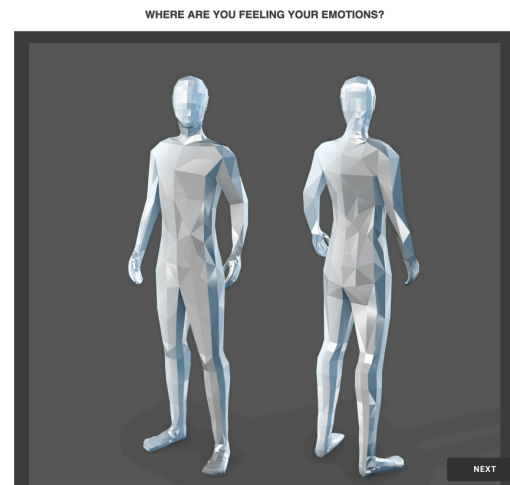
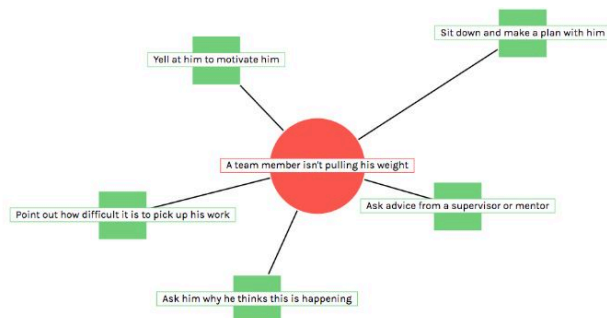


Figure 3. Prototype Body Map Tool

The program will have many additional tools and interactive activities throughout. While not exhaustive, further examples of tools we are currently working on include behavior and interpretation mind maps (see Figure 4), and an emotion assessment grid (see Figure 5). The Behavior Mind Map is an activity that helps learners to see that there are many different ways to react to a situation. In the activity, learners are given a situation, and their objective is to come up with at least three different ways to react to that situation. The Interpretation Mind Map is an activity that helps learners to see that your initial interpretation may not always be the most helpful or “best” way to think about a situation. In the activity, learners are given a situation, and their objective is to come up with at least three different interpretations for the given situation.

### Behavior Mind Map



### Interpretation Mind Map

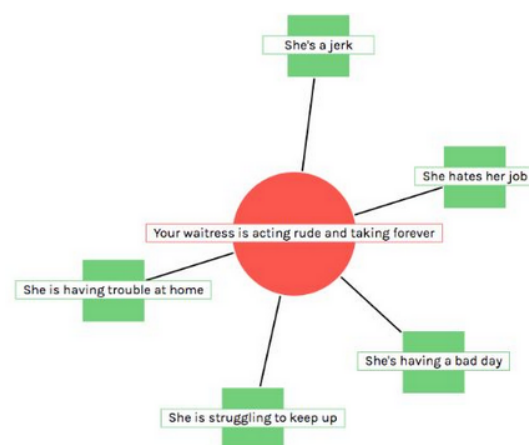


Figure 4. Examples of the Behavior and Interpretation Mind Maps.

As shown in Figure 6, the training program will track each learner’s awareness levels, how they felt completing different activities in and out of context, what activities are most effective for them based on their individual results, as well as different types of healthy coping mechanisms. Figure 6 provides a prototype example of a final overview screen that provides the individual

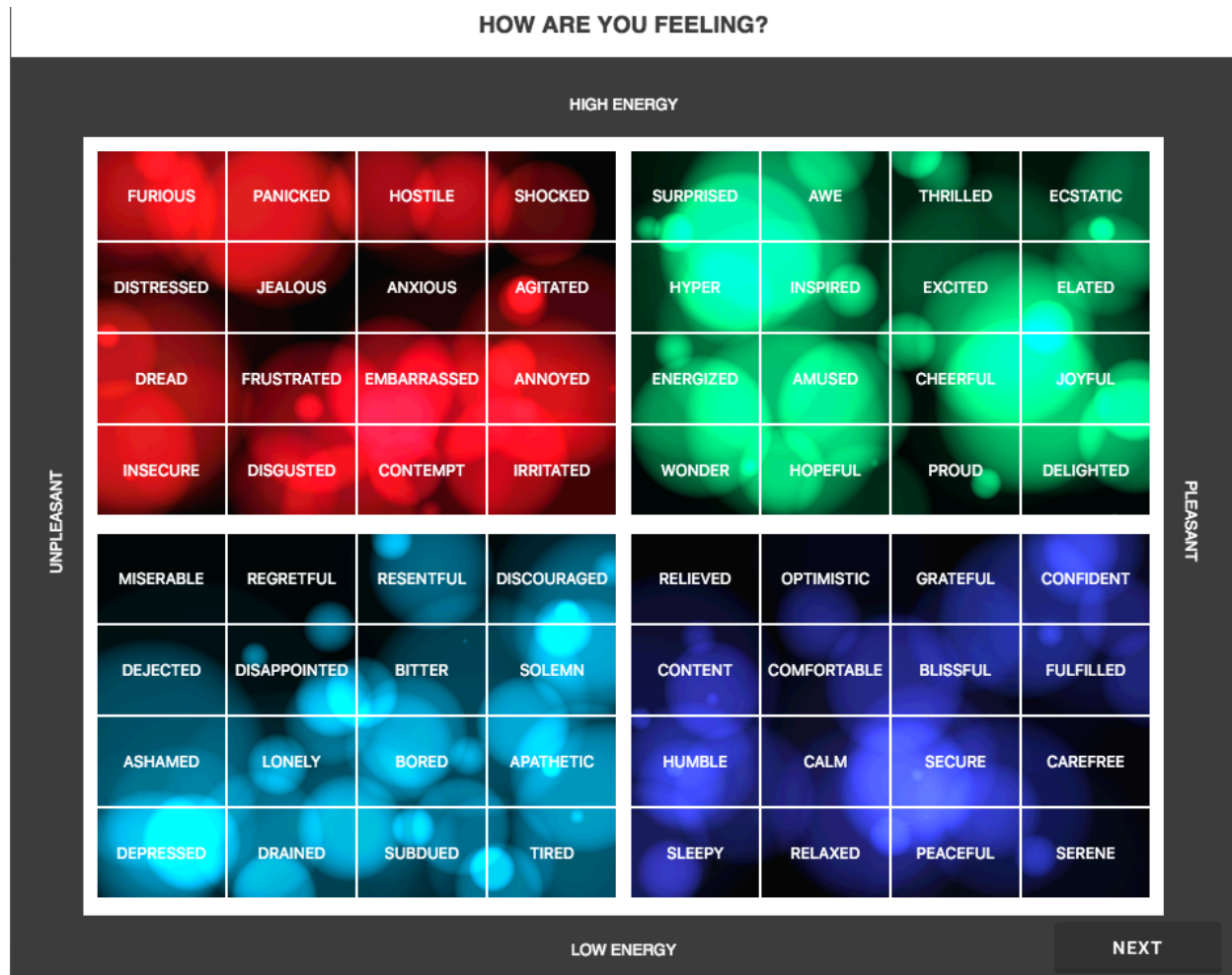


Figure 5. Emotion Assessment Grid

with a personalized description of their performance during the training, with suggested areas of strength and areas for continued improvement.

Over the past two quarters, our team has worked closely with the computer programmer/website developer to translate these concepts into workable platforms. We have closely copy-edited each of the lessons and have worked with a certified doctoral level Speech-Language Pathologist to level the reading grade level of all content to be readable by 8<sup>th</sup> grade readers. The content has also been closely edited by a doctoral level psychologist with expertise in emotional functioning and emotional intelligence. We also continue to work with the programmer/website developer to ensure that the general look and feel of the product will be attractive to military audiences.

We anticipate that the final beta-version of the program will be programmed and available from the website developer by August, 2017. At that time, we plan to conduct several iterative refinements to ensure the program is in full working order before moving to Task 3.





completed an iteration (n=40), or are waiting to go through a new iteration of Task 2 (n=101). All 40 of the participants that completed the study had a 100% attrition rate, and have had no difficulties following the study visit.

A little less than 35% of interested volunteers were deemed ineligible. As depicted in Figure 8 below, of the 70 ineligible volunteers, the primary exclusionary criterion is the age limit of 18-35 years. Other screening criteria that lead to immediate exclusion have included a form of hearing loss, colorblindness, did not have English as their primary language, and/or were below an 8<sup>th</sup> grade reading level.

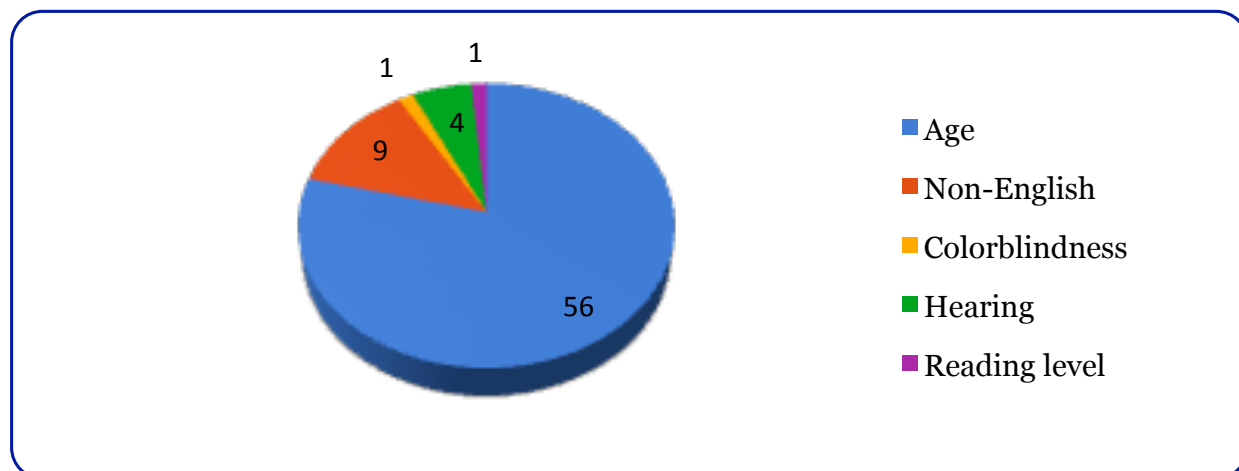


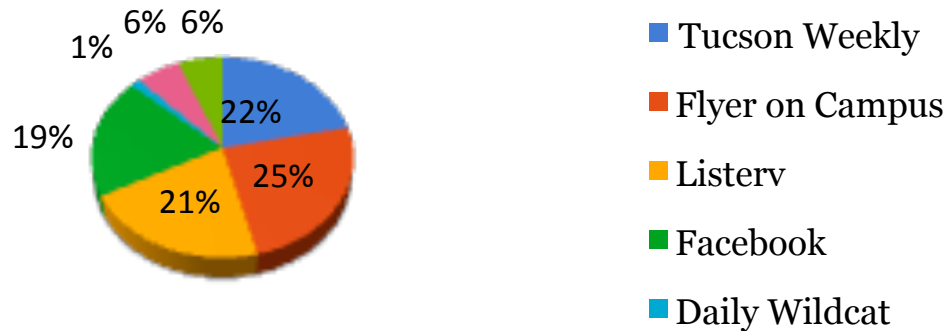
Figure 8. Sample ineligibility.

Advertising/Recruitment Success: In an attempt to better understand the effectiveness of our advertising efforts, we have conducted an extensive analysis of the source of recruitment and whether these sources yielded success in recruitment of participants. To accomplish this task, we asked each individual who contacted us for a telephone screening interview to indicate where they heard about our study. Figure 9 A and B below show the breakdown of data for the number of interested callers who found out about the study from each outlet. However, even though we receive a lot of calls from a particular advertising source does not mean that those calls will translate into actual enrolled participants. Therefore, we present data on the number of “eligible” participants that have resulted from each advertising venue.

As evidenced in the *Total Recruitment Source Response* figure below, many of our callers found out about our study from the local free Tucson Weekly newspaper, with 47 of our callers from that source. However, of those 47 callers, only 4% were eligible (n=6). This may be due to the fact that the Tucson Weekly is more likely to be read by those ages 35 and older. To alleviate this issue, we plan to advertise more frequently through sources that cater to a younger demographic that already yield successful enrollment rates, such as through Facebook and university listservs.



## A) Total Recruitment Source Response



## B) Eligible Recruits from Each Source

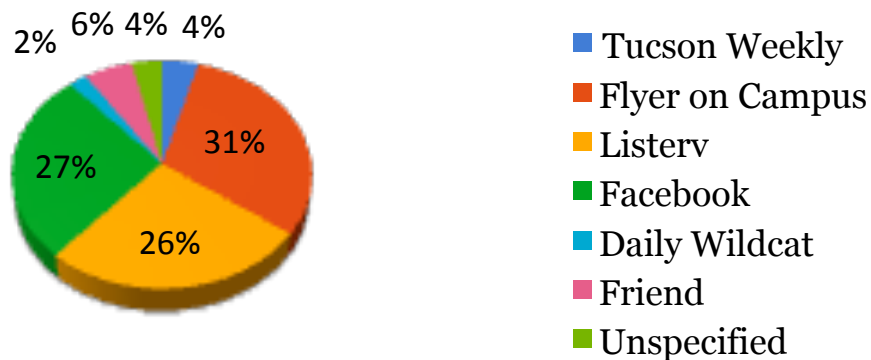


Figure 9. Total recruitment by source (A) and eligible recruits from each source (B).

### What opportunities for training and professional development has the project provided?

Two postdoctoral fellows, Dr. Alkozei and Dr. Smith, attended the Society for Biological Psychiatry Conference in Atlanta, GA in MAY 2016.

The PI, Study Coordinator, Graduate Student, and a Postdoctoral Fellow attended the Meeting for Associated Professional Sleep Societies in JUN 2016.

One postdoctoral fellow, Dr. Alkozei, attended the International Neuropsychological Society Meeting held in New Orleans, LA in FEB 2017.

### **How were the results disseminated to communities of interest?**

We have worked to disseminate knowledge about Emotional Intelligence to a number of interested communities:

- We have given a presentation on emotional intelligence and the developing EIT program to groups of visiting Army Intelligence Officers from the Captain's Career Course at Fort Huachuca on two separate occasions.
  - 08 NOV 2016
  - 19 APR 2017
- We gave presentations to retired Service members visiting the Kino Workforce Veteran's Center in an effort to connect unemployed veterans with income earning opportunities.
  - JAN 2017
  - MAR 2017

### **What do you plan to do during the next reporting period to accomplish the goals?**

We will utilize each data collection iteration of the refinement phase to inform us of the weaknesses and strengths of the program. We will do this by further bolstering recruitment efforts, enrolling and collecting data from those individuals whom are eligible to participate in the study.

Once the iterative refinement phase of the study is complete, we plan to begin collecting data for the Efficacy Phase of the study (Task 3) to determine the most effective training duration.

## **4. IMPACT:**

### **What was the impact on the development of the principal discipline(s) of the project?**

Nothing to report.

### **What was the impact on other disciplines?**

Nothing to report.

### **What was the impact on technology transfer?**

Nothing to report.

## **What was the impact on society beyond science and technology?**

Nothing to report.

## **5. CHANGES/PROBLEMS:**

### **Changes in approach and reasons for change**

Overall, the website developer/programmer has been taking slightly longer than initially planned to construct and deliver the program content. Throughout Year 1, we slowly realized that our initial anticipated plan of iterative refinement would be delayed due to the methodology of the programmers and web developers. It is critical that we have a solid working program before moving to the next phase of the study, so we have allowed the programmers some flexibility in completion time to ensure the highest quality content and presentation format. Due to the tiered nature of the new EI program, it became clear that our initial plan of iterative refinement of specific modules throughout Year 1 was unrealistic, as each module is built off of previous modules. Therefore, our plan is to conduct several iterative refinements of the program as a whole once we have a full working beta version. We received a rough beta version of one portion of the program on 14 APR 2017 and are working with our developers daily to fine tune it and fix technical issues before it is administered to participants.

### **Actual or anticipated problems or delays and actions or plans to resolve them**

Due to the aforementioned change in approach to the iterative refinement phase, recruitment and enrollment of participants has been slightly delayed. To remediate any issues the delay would otherwise pose, we have pre-recruited and screened 101 eligible individuals who are awaiting possible entry into the study. These individuals are waiting to be scheduled once the program is sufficiently functional and available for use.

### **Changes that had a significant impact on expenditures**

Nothing to report.

### **Significant changes in use or care of human subjects, vertebrate animals, biohazards, and/or select agents**

- **Significant changes in use or care of human subjects**

Nothing to report.

- **Significant changes in use or care of vertebrate animals.**

Nothing to report. (No use of vertebrate animals is required for completing the project)

- **Significant changes in use of biohazards and/or select agents**

Nothing to report. (No use of biohazards and/or select agents is required for completing the project)

**6. PRODUCTS:** List any products resulting from the project during the reporting period. If there is nothing to report under a particular item, state “Nothing to Report.”

- **Publications, conference papers, and presentations**

- **Journal publications.**

Nothing to report.

- **Books or other non-periodical, one-time publications.**

Nothing to report.

- **Other publications, conference papers, and presentations.**

Nothing to report.

- **Website(s) or other Internet site(s)**

Nothing to report.

- **Technologies or techniques**

Nothing to report.

- **Inventions, patent applications, and/or licenses**

Nothing to report.

- **Other Products**

Nothing to report.

## **7. PARTICIPANTS & OTHER COLLABORATING ORGANIZATIONS**

### **What individuals have worked on the project?**

Name: William D. "Scott" Killgore, Ph.D.

Project Role: PI

Nearest person month worked: 4

Contribution to Project: Dr. Killgore oversees all aspects of project progress and orchestrates data analysis and publication efforts.

Funding Support: W81XWH-12-1-0386

W81XWH-14-1-0570

W81XWH-14-1-0571

Name: John Allen, Ph.D.

Project Role: Co-PI

Nearest person month worked: 1

Contribution to Project: Dr. Allen assists in program module development.

Funding Support: no change

Name: Richard Lane, M.D., Ph.D.

Project Role: Co-PI

Nearest person month worked: 1

Contribution to Project: Dr. Lane assists in program module development.

Funding Support: no change

Name: Karen Weihs, M.D.

Project Role: Co-PI

Nearest person month worked: 1

Contribution to Project: Dr. Weihs assists in program module development.

Funding Support: no change

Name: Sahil Bajaj, Ph.D.

Project Role: Postdoctoral Fellow

Nearest person month worked: 2

Contribution to Project: Dr. Bajaj assists in program module development and performs data analysis and processing for the project.

Funding Support: W81XWH-12-1-0386

W81XWH-14-1-0570

W81XWH-14-1-0571

Name: Sara Knight

Project Role: Lab Manager

Nearest person month worked: 2

Contribution to Project: Ms. Knight oversees the administrative needs of the study and study staff, in addition to providing regulatory support and performing periodic quality control checks.

Funding Support: W81XWH-12-1-0386  
W81XWH-14-1-0570  
W81XWH-14-1-0571

Name: Sarah Berryhill

Project Role: Study Coordinator

Nearest person month worked: 6

Contribution to Project: Mrs. Berryhill oversees project progress and manages the day-to-day needs of the project.

Funding Support: W81XWH-12-1-0386  
W81XWH-14-1-0570  
W81XWH-14-1-0571

Name: Matthew Allbright

Project Role: Research Technician

Nearest person month worked: 1

Contribution to Project: Mr. Allbright oversees the technical aspects of the project and assists in database export, storage, backup, and management.

Funding Support: W81XWH-12-1-0386  
W81XWH-14-1-0570  
W81XWH-14-1-0571

Name: Skye Challener

Project Role: Research Technician

Nearest person month worked: 2

Contribution to Project: Ms. Challener provides support with data collection and recruitment activities.

Funding Support: W81XWH-12-1-0386  
W81XWH-14-1-0570  
W81XWH-14-1-0571

Name: Alyssa Dormer

Project Role: Research Technician

Nearest person month worked: 2

Contribution to Project: Ms. Dormer provided support with data collection and recruitment activities.

Funding Support: W81XWH-12-1-0386  
W81XWH-14-1-0570  
W81XWH-14-1-0571

Name: Melissa Kelly Gottschlich  
Project Role: Research Technician  
Nearest person month worked: 2  
Contribution to Project: Ms. Gottschlich provides support with data collection and recruitment activities.  
Funding Support: W81XWH-12-1-0386  
W81XWH-14-1-0570  
W81XWH-14-1-0571

Name: Simone Hyman  
Project Role: Research Technician  
Nearest person month worked: 3  
Contribution to Project: Ms. Hyman provides support with data collection and recruitment activities.  
Funding Support: W81XWH-12-1-0386  
W81XWH-14-1-0570  
W81XWH-14-1-0571

Name: Jacqueline Marquez  
Project Role: Research Technician  
Nearest person month worked: 4  
Contribution to Project: Ms. Marquez provides support with data collection and recruitment activities.  
Funding Support: W81XWH-12-1-0386  
W81XWH-14-1-0570  
W81XWH-14-1-0571

Name: Anna Sanova  
Project Role: Research Technician  
Nearest person month worked: 3  
Contribution to Project: Ms. Sanova provides support with data collection and recruitment activities.  
Funding Support: W81XWH-12-1-0386  
W81XWH-14-1-0570  
W81XWH-14-1-0571

Name: Anmol Singh  
Project Role: Research Technician  
Nearest person month worked: 3  
Contribution to Project: Mr. Singh provides support with data collection and recruitment activities.  
Funding Support: W81XWH-12-1-0386  
W81XWH-14-1-0570  
W81XWH-14-1-0571

Name: John R Vanuk  
Project Role: Graduate Student  
Nearest person month worked: 5  
Contribution to Project: Mr. Vanuk provides support with data collection, recruitment activities, and performs data analysis and processing for the project.  
Funding Support: no change

**Has there been a change in the active other support of the PD/PI(s) or senior/key personnel since the last reporting period?**

Name: William D. “Scott” Killgore, Ph.D.  
Project Role: PI  
Changes in funding support:

- Closure of DoD sponsored project W81XWH-11-1-005: 31 DEC 2016

**What other organizations were involved as partners?**

Smart Sparrow, LLC  
375 Alabama St., Suite 490  
San Francisco, CA 94110

- Software developers hired to engineer and program the Emotional Intelligence Training Program.

**8. SPECIAL REPORTING REQUIREMENTS**

**COLLABORATIVE AWARDS:** For collaborative awards, independent reports are required from BOTH the Initiating PI and the Collaborating/Partnering PI. A duplicative report is acceptable; however, tasks shall be clearly marked with the responsible PI and research site. A report shall be submitted to <https://ers.amedd.army.mil> for each unique award.

*n/a—not a collaborative award*

**QUAD CHARTS:** If applicable, the Quad Chart (available on <https://www.usamraa.army.mil>) should be updated and submitted with attachments.

*Please find an updated quad chart in the appendices*



## 9. APPENDICES:

### TABLE OF CONTENTS

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## **Refinement and Validation of a Military Emotional Intelligence Training Program**

### **List of Assessments and Computer-Administered Tasks**

Demographics Questionnaire

Mindful Attention Awareness Scale - Trait (MAAS-Trait)

Mindful Attention Awareness Scale – State (MAAS-State)

Multidimensional Assessment of Interoceptive Awareness (MAIA)

Emotional Intelligence Training Program – (Iterations 1-4)

# Demographics Questionnaire

Please complete the survey below.

Thank you!

Date:

---

Date of Birth:

---

Sex:

- ☐ Male  
☐ Female

What is the highest grade or level of school that you have completed or the highest degree you have obtained?

- ☐ Less than 9th grade  
☐ Some high school, no diploma  
☐ High school graduate, or equivalent  
☐ Some college, no degree  
☐ Technical/vocational degree  
☐ Associate Degree  
☐ Bachelor's Degree  
☐ Master's Degree  
☐ Doctorate Degree

With what ethnicity do you identify?

- ☐ White  
☐ Hispanic/Latino  
☐ Black/African American  
☐ Native American/American Indian  
☐ Asian/Pacific Islander  
☐ Other

Please Specify:

---

Did you consume any products containing caffeine today?

- ☐ Yes  
☐ No

What kind of product did you consume and at what time today?

---

How much of the product containing caffeine did you consume? (e.g. 1 cup coffee)

---

Are you taking any medications?

- ☐ Yes  
☐ No

What kind of medication are you taking and how much?

---

(e.g. Lexapro, 10 mg )

# Maas State

1. When I am tense I notice where the tension is located in my body. \_\_\_\_\_

**Using the 0-6 scale shown, please indicate to what degree you were having each experience described below when you were going through the awareness training program. Please answer according to what really reflected your experience rather than what you think your experience should have been.**

	(0) Not at all	(1)	(2)	(3) Somewhat	(4)	(5)	(6) Very Much
1. I was finding it difficult to stay focused on what was happening.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2. I was doing something without paying attention.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3. I was preoccupied with the future or the past.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4. I was doing something automatically, without being aware of what I was doing.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5. I was rushing through something without being really attentive to it.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

# MAAS Trait

1. When I am tense I notice where the tension is located in my body. \_\_\_\_\_

**Below is a collection of statements about your everyday experience. Using the 1-6 scale below, please indicate how frequently or infrequently you currently have each experience. Please answer according to what really reflects your experience rather than what you think your experience should be. Please treat each item separately from every other item.**

	(1) Almost Always	(2) Very Frequently	(3) Somewhat Frequently	(4) Somewhat Infrequently	(5) Very Infrequently	(6) Almost Never
I could be experiencing some emotion and not be conscious of it until some time later.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I break or spill things because of carelessness, not paying attention, or thinking of something else.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I find it difficult to stay focused on what's happening in the present.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I tend to walk quickly to get where I'm going without paying attention to what I experience along the way.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I tend not to notice feelings of physical tension or discomfort until they really grab my attention.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I forget a person's name almost as soon as I've been told it for the first time.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
It seems I am "running on automatic," without much awareness of what I'm doing.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I rush through activities without being really attentive to them.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I get so focused on the goal I want to achieve that I lose touch with what I'm doing right now to get there.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

I do jobs or tasks automatically, without being aware of what I'm doing.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I find myself listening to someone with one ear, doing something else at the same time.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I drive places on "automatic pilot" and then wonder why I went there.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I find myself preoccupied with the future or the past.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I find myself doing things without paying attention.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I snack without being aware that I'm eating.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

# **Multidimensional Assessment of Interoceptive Awareness (MAIA)**

Contact: Wolf E. Mehling, MD  
Osher Center for Integrative Medicine  
University of California, San Francisco  
1545 Divisadero St., 4<sup>th</sup> floor  
San Francisco, CA 94115  
Phone: 01 (415) 353 9506  
[mehlingw@ocim.ucsf.edu](mailto:mehlingw@ocim.ucsf.edu)  
<http://www.osher.ucsf.edu/maia/>

**Below you will find a list of statements. Please indicate how often each statement applies to you generally in daily life.**

	Circle one number on each line					
	Never			Always		
1. When I am tense I notice where the tension is located in my body.	0	1	2	3	4	5
2. I notice when I am uncomfortable in my body.	0	1	2	3	4	5
3. I notice where in my body I am comfortable.	0	1	2	3	4	5
4. I notice changes in my breathing, such as whether it slows down or speeds up.	0	1	2	3	4	5
5. I do not notice (I ignore) physical tension or discomfort until they become more severe.	0	1	2	3	4	5
6. I distract myself from sensations of discomfort.	0	1	2	3	4	5
7. When I feel pain or discomfort, I try to power through it.	0	1	2	3	4	5
8. When I feel physical pain, I become upset.	0	1	2	3	4	5
9. I start to worry that something is wrong if I feel any discomfort.	0	1	2	3	4	5
10. I can notice an unpleasant body sensation without worrying about it.	0	1	2	3	4	5
11. I can pay attention to my breath without being distracted by things happening around me.	0	1	2	3	4	5
12. I can maintain awareness of my inner bodily sensations even when there is a lot going on around me.	0	1	2	3	4	5
13. When I am in conversation with someone, I can pay attention to my posture.	0	1	2	3	4	5
14. I can return awareness to my body if I am distracted.	0	1	2	3	4	5
15. I can refocus my attention from thinking to sensing my body.	0	1	2	3	4	5
16. I can maintain awareness of my whole body even when a part of me is in pain or discomfort.	0	1	2	3	4	5



Please indicate how often each statement applies to you generally in daily life.

	Circle one number on each line					
	Never					Always
17. I am able to consciously focus on my body as a whole.	0	1	2	3	4	5
18. I notice how my body changes when I am angry.	0	1	2	3	4	5
19. When something is wrong in my life I can feel it in my body.	0	1	2	3	4	5
20. I notice that my body feels different after a peaceful experience.	0	1	2	3	4	5
21. I notice that my breathing becomes free and easy when I feel comfortable.	0	1	2	3	4	5
22. I notice how my body changes when I feel happy / joyful.	0	1	2	3	4	5
23. When I feel overwhelmed I can find a calm place inside.	0	1	2	3	4	5
24. When I bring awareness to my body I feel a sense of calm.	0	1	2	3	4	5
25. I can use my breath to reduce tension.	0	1	2	3	4	5
26. When I am caught up in thoughts, I can calm my mind by focusing on my body/breathing.	0	1	2	3	4	5
27. I listen for information from my body about my emotional state.	0	1	2	3	4	5
28. When I am upset, I take time to explore how my body feels.	0	1	2	3	4	5
29. I listen to my body to inform me about what to do.	0	1	2	3	4	5
30. I am at home in my body.	0	1	2	3	4	5
31. I feel my body is a safe place.	0	1	2	3	4	5
32. I trust my body sensations.	0	1	2	3	4	5

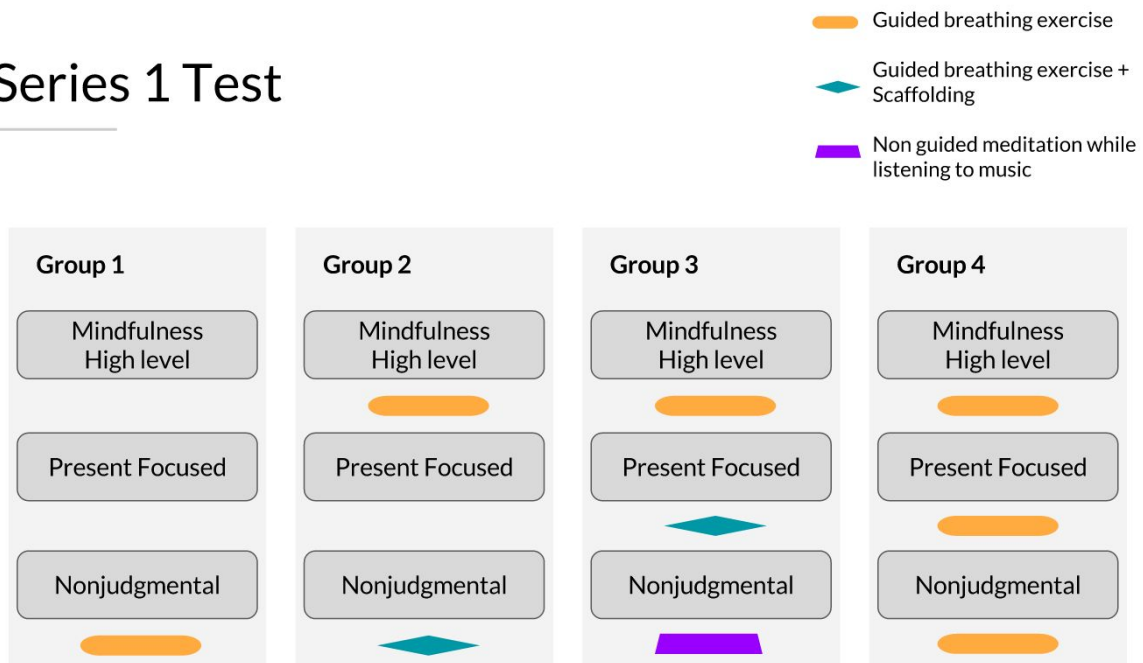
# Emotional Intelligence

## Testing Submission

Subject: Identifying the most effective frequency of meditative practice within a learning session using mindfulness as the focus area.

This series of tests will consist of four experimental groups of approximately 10 participants each. The process will consist of a demographics questionnaire and initial assessment comprised of multidimensional assessment of interoceptive awareness (MAIA), followed by the participation in the learning experience, and concluding with a post-assessment of the MAIA. The four experimental groups each receive the same learning experience with variable frequency of mindfulness meditation practice. The learning experience in this test teaches mindfulness and is composed of three submodules: High level mindfulness, focus on the present awareness aspect of mindfulness, focus on the nonjudgmental aspect of mindfulness. Group 1 will have 1 mindfulness practice, Group 2 will have two different practices, Group 3 will have 3 different practices, and Group 4 will have 3 identical practices. The results of this test will inform design of the overall learning experience moving forward.

## Series 1 Test



## Group 3

What is your level of experience with mindfulness or meditation?

- ☐ None
- ☐ Heard about it, not sure what it is
- ☐ I know what it is but have never practiced it
- ☐ I have tried mindfulness meditation but didn't like it
- ☐ I have done it a few times but don't do it often
- ☐ I practice mindfulness meditation often

What is your comfort level with mindfulness and meditation?

- ☐ I feel confident and ready to meditate on my own
- ☐ I may be able to meditate on my own, but I probably need more guidance
- ☐ I need more guidance before I am able to meditate on my own
- ☐ I am not comfortable meditating, even with guidance

Next



How motivated do you feel to practice mindfulness or meditation?

- ☐ I'm very motivated to practice them
- ☐ I'm looking forward to learning and practicing them
- ☐ I'll give it a try, but I am not sure about this
- ☐ I don't want to practice mindfulness and meditation

What ideas and emotions do you have about mindfulness and meditation?

- ☐ Calming
- ☐ Girly
- ☐ New-agey
- ☐ Trendy
- ☐ Useful
- ☐ Important
- ☐ Lame
- ☐ Fluffy
- ☐ Stress reducing
- ☐ Useless

Next



If you were asked about mindfulness, how would you describe it?

Finish



### Mindfulness

This word has popped up more and more lately. It's been on the covers of magazines, in the mouths of celebrities, and in the titles of books. But what does mindfulness really mean?






Next



What does mindfulness mean to you?

Drag the items that best describe mindfulness from the bank on the right into the area on the left. Be sure to scroll down to see all the items in the item bank.

Remaining Calm

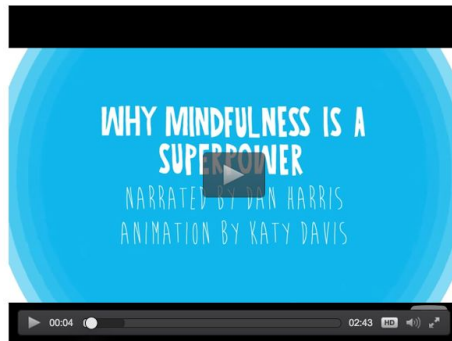


Mind Full, or Mindful?

Next



### Introducing Mindfulness



Next

Let's start off trying to be mindful with a short breathing exercise. While doing this, try staying attentive to your breath, the sensation of the air going through your body, and the movements associated with breathing. Every time you notice your mind wandering away from these things, gently return your attention to your breathing.

We will be using a four-count breathing pattern. First, inhale deeply from your belly for a count of four. Then hold your breath for a count of four and exhale for a count of four to empty all the air from your lungs and finish by holding your empty lungs for four seconds. Repeat this cycle four times.

Give it a try and press next when you're finished.

1... 2... 3... 4...

Next

Mindfulness is new to a lot of people so take a minute to think about how this experience went.

How comfortable was this exercise for you?

☐ Surprisingly comfy ☐ Weird, but fine ☐ Pretty uncomfortable

How difficult was it for you to keep your attention on your breathing?

☐ Super easy ☐ Kinda easy ☐ Tough ☐ Really hard

When you felt your mind wander, were you able to bring your attention back to your breathing?

☐ Absolutely ☐ Most of the time ☐ Sometimes ☐ Nope

Were you feeling like you might be doing this wrong?

☐ Yes ☐ A little bit ☐ No

Next



The main components of mindfulness (click on the bolded text to read more)

Mindfulness is:

"Paying attention **on purpose**, in the **present moment**, and **nonjudgmentally**."

Mindfulness is the conscious and deliberate direction of our attention.

When we're on going through the day our attention is often swept up by a never ending current of thoughts but when we're mindful we 'wake up' and step out of that current, placing attention where we choose.

We're very rarely fully present in the moment. We get caught up in replaying the past and imagining the future.

Mindful attention, however, is completely engaged in the present moment experience – the here and now.

When practicing mindfulness we're not trying to control, suppress, or stop our thoughts.

We aim to pay attention to our experiences as they arise without judging or labelling them in any way.

Next



#### Mindfulness Myths - Calm, happy, and relaxed

Remaining Calm

Relaxation

Maintaining Happiness

Stress Reduction

Remaining calm, relaxed and happy is not necessarily a part of mindfulness practice. In fact sometimes practicing mindfulness can be a bit stressful. It doesn't come easy at first and can make you deal with some uncomfortable emotions. However, mindfulness does help us observe emotions as they arise without getting caught up in them and being swept away in their current resulting in less distress and more happiness and relaxation overtime.

Next



#### Mindfulness Myths - Meditation



It's true that mindfulness meditation is a good way to practice and improve your mindfulness skills, but it can be done as part of your daily routine. Even when mindfulness is practiced through meditation does not require a specific pose or 40 days of silence in the desert. It's just about purposefully focusing your attention on something immediate and not judging it.

Next





### Mindfulness - Exercise the Brain



Mindfulness is in fact a cognitive ability that can be practiced and improved. It can be looked at as an exercise for the brain muscle. The more you practice mindfulness, the stronger the muscle gets.

Next



### Zoning out

One type of non-mindful behavior is sometimes referred to as being on "autopilot". Have you ever been reading a book and reached the bottom of the page, then noticed that you can't remember a word you read? Or been in the shower not sure if you already washed your hair? Or maybe been driving to the store and find yourself suddenly in the parking lot without noticing that you drove all the way there? This is very common behavior that happens to almost everyone.

When do you find yourself on "autopilot"?

- ☐ Brushing your teeth
- ☐ Taking a shower
- ☐ Driving
- ☐ Walking my dog
- ☐ Watching TV
- ☐ Other

Next



### In the Zone

Being present allows one to evaluate the best way to react in the present moment. Imagine skiing downhill at high speed. You feel the wind whipping past you, the cool mountain breeze, and enjoy the deep blue of the sky. You're in the zone. You're in the moment and experiencing every piece of it. When you're in the zone, you stop being trapped in "doing" and start just "being" in the present moment.

What's something in your life that could benefit from being present or in the zone?

Next



HELP

### Recognizing mindfulness behaviors

Sort the following behaviors into whether they are being practiced mindfully

Mindful

Not mindful

Listen to an audiobook while lying down

Take a run and focus on your muscles

Savor the taste of your burger

Feel stupid for being sad that the Panthers lost the Super Bowl

Next



Why should we practice mindfulness? Click the articles to read a little more!

HEALTHY LIVING

### Mindfulness Meditation Could Lower Levels Of Cortisol, The Stress Hormone

© 2019-2020 11:05 pm EDT

### Mindfulness holds promise for treating depression

New research suggests that practicing mindfulness may help prevent a relapse.

Mindfulness meditation improves cognition: Evidence of brief mental training<sup>26</sup>

Fadel Zeidan<sup>1,2\*</sup>, Susan K. Johnson<sup>3</sup>, Bruce J. Diamond<sup>4</sup>, Zhanna David<sup>5</sup>, Paula Goolkasian<sup>6</sup>

Next



HELP

### Testimonials

If you just sit and observe, you will see how restless your mind is. If you try to calm it, it only makes things worse, but over time it does calm, and when it does, there's room to hear more subtle things — that's when your intuition starts to blossom and you start to see things more clearly and be in the present more.

[Meditation] really helps create not only a sense of balance... but serenity and kind of a calm state of mind... It helps me deal with life's ups and downs, coming from more of a centered place. Also it helps with creativity... It's tapping into something so deep that when I reap the rewards, I do not even know I'm reaping them.

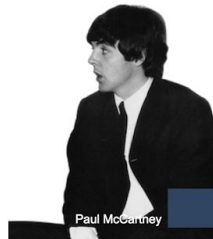
"In moments of madness, meditation has helped me find moments of serenity — and I would like to think that it would help provide young people a quiet haven in a not-so-quiet world... It's a lifelong gift, something you can call on at any time... I think it's a great thing."



Steve Jobs



Eva Mendes



Paul McCartney

Next



You've now heard quite a bit about how mindfulness has affected other people. Try thinking about how you could benefit from it.

Below is a list of positive outcomes of mindfulness practice. Drag the ones that you'd most like to see in your life into the area on the left.

Boosted working memory

Improved Focus

Increased relationship satisfaction

More cognitive flexibility

Increased Body Satisfaction

Reduced Distractions

Reduced stress and anxiety

More comfortable with

Next



After all this, you definitely want to improve your mindfulness, right? You're probably wondering how you can do that. One great way to practice is through meditation. Mindfulness meditation is very flexible and doesn't require much time or specific conditions. On the next screen you'll watch a video about the basics of mindfulness meditation.



Next



Meditation 101



Next



Based on the video, which of these are the true of mindfulness meditation?

Losing your focus while meditating means you are doing it wrong.

true

In order to start meditating, you need to find a silent place and lay down.

false

Maintaining mindfulness meditation practice over time is important even for just a few minutes a week.

true

Meditation is hard and failing is a part of the process.

false

The most important part of mindfulness meditation is continually returning your focus to the present moment nonjudgmentally.

true

Next



This information on meditation could be new to you or you could already have known all this. How are you feeling about meditation right now?

- ☐ I am ready to do it!
- ☐ Sounds interesting, but I'd like to hear more.
- ☐ Sounds nice, but probably not my thing.
- ☐ This is not something that interest me.
- ☐ I still don't understand what this is or why I should do it.

Next



#### Your First Mindfulness Meditation Practice

By this point you should have started to understand the components of mindfulness and the benefits of practicing mindful meditation. On the next screen, you'll go through a short, guided mindfulness meditation practice.

During this quick practice, keep the components of mindfulness in your head to help you get the most out of this experience.

Present-focused

Nonjudgmental

Intentional

Next



Your First Mindfulness Meditation Practice



Next



HELP

Alright! So now you've tried mindfulness meditation! What did you think?

- ☐ It was weird
- ☐ I liked it
- ☐ This was stupid
- ☐ I could see myself doing this
- ☐ I liked it, but I can't imagine making it part of my day
- ☐ It was boring
- ☐ It was hard
- ☐ None of these

After giving mindfulness a try, what did you notice you were feeling?

- ☐ I felt my body and mind relax a little bit
- ☐ I felt irritated and a sense of frustration
- ☐ I felt like falling asleep
- ☐ I felt embarrassed and self-conscious
- ☐ I felt good about trying something new
- ☐ I didn't feel any of these things

Next



### Mindfulness

Now that you've got a good understanding of how mindful meditation is practiced, let's look a little deeper at the components of mindfulness. Pick which one you'd like to explore first.

Present-focused

Nonjudgmental

Intentional



Mindfulness is a practice that can only be effective if you make a choice to do it. The intentional component of mindfulness is in making time in your day to take five minutes and practice. This may seem simple, but life is busy and there's a lot of things that can get in the way.

If you were to decide right now to practice mindfulness in your day, what do you think would get in the way most?

- ☐ I wouldn't be interested in doing it
- ☐ I'd have trouble finding time
- ☐ I couldn't keep going if I didn't make progress quickly
- ☐ I have trouble being motivated
- ☐ I don't think I'd benefit from it
- ☐ I wouldn't let anything stop me

Next





One component of mindfulness is maintaining focus on the present.

Take a look at this picture.



Next



By maintaining focus on the present, we can make sure that we fully experience what's going on around and within us. How well were you aware of what was in that picture?

How many feathers?

☐ 0 ☐ 1 ☐ 2 ☐ 3

What color was the thumbtack?

☐ Blue ☐ Green ☐ Red ☐ There was no thumbtack

Which of the following was in the image? (Select all that you saw):

☐ Blue feather ☐ Spider ☐ Rattlesnake tail ☐ Arrowhead ☐ Firefly

Which of these did you see? (Select all that you saw):

☐ Penny ☐ Paperclip ☐ Green pin ☐ Ruler ☐ Pencil

Next



Maintaining focus on the present isn't always easy. There are a lot of distractors in our lives. While you were looking at that picture, what were you thinking about?

What were you feeling while completing this exercise?

- ☐ I was getting distracted by my surroundings
- ☐ I got wrapped up in my thoughts
- ☐ I was feeling nervous to get the question correct
- ☐ I didn't understand why I am doing this
- ☐ I enjoyed looking at the details of the picture
- ☐ I just wanted to get this over with
- ☐ I was overwhelmed by the amount of detail
- ☐ Nothing

Next



So much of our time is spent thinking about what we've done in the past or what might be coming right around the corner--and with good reason! Learning from past experiences shapes a lot of our behaviors and planning for the future helps make us feel more secure in the present. However, something that neither of these things can do is help us understand what's going on with us right now. We can't see everything in this picture if our minds are busy with the past or future...



Next



When we experience an emotional reaction, we usually do one of two things and some of us do both (click on each to see an example):

- Connect emotions to memories
- Catastrophize the future

If we remember feeling annoyed the last time that we waited in line at the post office, it's possible that fixating on that negative experience can make us start to feel frustrated even when the situation doesn't cause it. No two experiences are the same. Just because something's happened in the past, doesn't mean it's guaranteed to happen again right now.

If we're sad about a break-up and begin to think that we're going to be single forever that can be even more depressing! It's easy to start to predict the future when we're experiencing a negative emotion, but there's nothing that's 100% certain about the future.

Next

Let's say you are going to a party and don't know anybody who's going to be there. You are a bit stressed about talking to new people and might even have had some awkward experiences in the past. What would be a mindful response in this situation?

- ☐ Think about the things that you feel you did wrong last time and how you're not going to keep that from happening this time.
- ☐ Worry about no one wanting to talk to you.
- ☐ Start talking to someone, listen, and direct your attention to what they are saying.
- ☐ Plan questions and topics to talk about with new people.

Next

Losing focus on the present moment is something that happens to people a lot and not only when they're having an emotional reaction. We also tend to lose focus on the present when we've got a lot of different things to do or are thinking about unrelated ideas. Common wisdom is that doing more than one thing at a time will save you time and effort.



What do you think?

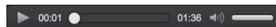
- ☐ Multitasking is better
- ☐ It's easier to focus on one thing at a time
- ☐ Multitasking can be hard, but works really well if you do it right
- ☐ There's not really a difference.
- ☐ I haven't ever really thought about it

Next



Read this email from your boss while taking a call from a friend click NEXT when you finish both:

Hi,  
I read the report you sent yesterday about employee satisfaction across the company and I am finding it difficult to understand what justifies the changes from the draft you send last Monday. It seems that the percentage of non-technical employees should not have gone up. Is that a mistake? In addition, the overall employee satisfaction score seems a bit low. Does this include management? How many employees took the questionnaire?  
I suggest re-sending a form via email to all of the employees and changing the wording of the questions to be more positive. Please make sure to send the new form to me by Tuesday for approval, I'll get it back to you by the next day and you can send it out immediately. I assume three days would be enough to collect all the forms and finalize the numbers right?  
Thank you for the good work.



Next



Let's see how much you were able to focus on either of these conversations.

When is your boss expecting to get the revised form?

☐ Monday ☐ Tuesday ☐ Thursday ☐ No deadline

When does she expect you to change in the form?

☐ Improve the quality ☐ Give it to management ☐ Make the language more positive ☐ Give it to more tech people

When is she expecting the final number?

☐ Tuesday ☐ Wednesday ☐ Thursday ☐ Friday ☐ Monday

What does your friend hate to be called?

☐ Kid ☐ Girl ☐ Vic ☐ Vicky

Where is your friend from?

☐ New Zealand ☐ England ☐ Australia ☐ Unknown

Next



HELP

Multitasking can seem efficient, but is it really? Take a minute to think about how you felt trying to do two things at once.

What was your mind doing while you were trying to multitask?

☐ Trying to focus on just one thing  
☐ Struggling to pay attention to either one  
☐ I tried to switch back and forth, but was always thinking about the other one  
☐ I completely shut down, it was too much  
☐ I did my best to pay attention to both, but couldn't  
☐ I had no problem doing both

Next



HELP

Anchoring ourselves in the present is very effective in mindfulness, but not easy to do. Like everything in mindfulness, it will take a lot of practice. Start now by taking a moment to simply notice something that's going on right now. This can be something happening around you or something going on inside you.

What did you notice?

Next



Remember this is something that nobody does perfectly the first time. On a scale of 1 to 10, how well do you think you were able to anchor yourself in the present moment just now when you took the time to notice something?



Next



You can practice this quickly every day using a simple form like the one below. Take a few moments everyday for a least a week to notice one thing that is happening to you. This can be a sound you hear, something you see, feel, or even smell. The goal of this activity is not to think about the meaning of what you notice nor is it to try to understand your reaction to it.

When you take the time to fill out this form, take a deep breath and focus on what's going the present.

Day	What did you notice	How effective were you at anchoring yourself in the present? 0 (not at all) - 10 (extremely)
1		
2		

Next



Being focused on the present moment is important for determining whether our emotional responses are an accurate reflection of current situational demands and needs. In other words, does what we are feeling actually have to do with what is happening now?

In what situations can being focused on the present help you in your life? (Select as many as you like)

- ☐ Focusing at work
- ☐ Trying to reach a personal goal
- ☐ Training at the gym
- ☐ Connecting with people
- ☐ Picking up a new hobby
- ☐ Learning about the world around you

Next



If you were to do each of these things, how do you think you would react?

When I overeat I think:

- ☐ Next time I'll be better
- ☐ I'm such a pig
- ☐ What's wrong with me?
- ☐ It happens

When I fail a job interview I think:

- ☐ I will never get a job
- ☐ I'll get the next one
- ☐ I did my best
- ☐ I don't deserve a job

When I say something I regret to a friend:

- ☐ I play it back many times in my head and get upset
- ☐ I think I'm the worst friend I can't believe I did that
- ☐ I forget about it and move on
- ☐ I remember that I was upset and it the best I could

When I'm moody for no clear reason:

- ☐ I get mad at myself
- ☐ I try to let it go and move on
- ☐ I think I must be crazy
- ☐ I try to actively change my mood for the better

Next



### Nonjudgmental awareness

Mindfulness is all about focusing on what we're experiencing—whether it be emotions, sensations, or actions. Whenever we feel something, it is often our first instinct to evaluate it and decide whether it was good or bad. We decide whether that's how we should be feeling and, if we don't like it, we try to change it.

In mindfulness, it is important to avoid making these kinds of judgments and to begin to see these experiences as passing states—not good or bad, but just happening.

Next





### Nonjudgmental awareness

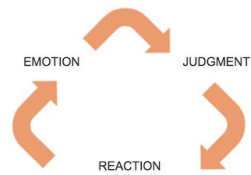
In your life, which of these things do you tend to be judgmental about? (Select all that apply)

- ☐ Weird things you said.
- ☐ Times that you've done something you regret.
- ☐ Binging on Netflix.
- ☐ Eating so much you feel sick.
- ☐ Deciding not to exercise.
- ☐ Avoiding your responsibilities.
- ☐ Making questionable choices.
- ☐ The way you react in certain situations.
- ☐ I'd rather not say.

Next



When we're constantly making judgments on our thoughts, feelings, and actions, that can cause even more severe reactions to them. For example, if you notice that you're tapping your foot and try to stop it, it suddenly becomes a lot harder to not tap your foot. You might even get anxious that you're not tapping it!



Next



In mindfulness, this same principle applies. Instead of trying to stop from feeling sad or mad, we should just observe that that's how we're feeling and let that feeling exist. Then it can naturally ebb, as all emotions do, like ripples in a pond.



Next



Staying in touch with our experiences, even when they are uncomfortable, and accepting them as they are is what mindfulness is all about. This is not to say that we should never try to change our emotions or actions, but that we let them pass nonjudgmentally without struggling with them and take steps to make them better in the future if necessary.

Brainstorm a couple of ways to react to these experiences that are nonjudgmental:

Next



### Practice not judging your experiences

Pretend that you entered a race and trained hard for a month beforehand. Unfortunately, you weren't able to place in the top of the finishers. For this reaction, select the nonjudgmental way to rephrase it:

"I lost the race so I must be terrible at running. I shouldn't have tried."

- ☐ "Losing a race is a stupid reason to feel bad"
- ☐ "I didn't try my hardest. I could have done better"
- ☐ "I didn't win this time and I feel bad about it."
- ☐ "I probably shouldn't have even been in this race"
- ☐ "I'm not going to feel bad about this race anymore"

Next



Being nonjudgmental is an important part of mindfulness, but it doesn't come easily. Filling the form below after practicing mindfulness is one way to practice this skill. The goal of this exercise is to get used to paying attention to what is happening inside and around you and not judging it. Practice acknowledging thoughts and feelings as they are, letting go of the need to critically judge, change or avoid the experience.

You could try tracking your progress at being nonjudgmental as you practice mindfulness using this form.

Day	What did you notice?			How effective were you at not judging your experience?
	Thoughts	Physical Sensations/ Feelings	Behaviors	0 (not at all) - 10 (extremely)
1				
2				

Next



In addition to not judging our emotions, sensations, and actions when practicing mindfulness, we should also try to not judge ourselves as either succeeding or failing at mindfulness. Just by doing it, we succeed at mindfulness.

Do you think that using a form like the one on the previous page would help you to be judgemental in your mindfulness experience?

- ☐ Yes
- ☐ No
- ☐ I'm not sure

Next



#### Mindfulness Practice

Remember, the goal is to let go of judgment about your experience and to just practice being an observer of your own experience or reactions. In this sense, there is no "right" or "wrong" way to practice mindful meditation, just getting more used to observing how your thoughts, feelings, sensations, and behaviors unfold and influence each other.

Let's practice again, only this time see if you can just observe any negative thoughts that come up, noting them as just thoughts, not allowing yourself to struggle with them, and noticing what physical sensations and behaviors also arise.

Next




ChromeFileEditViewHistoryBookmarksPeopleWindowHelp

Smart Sparrow - WorkspaceFrequency of Practice: Group 3Support

https://aelp.smartsparrow.com/bronte/readonly/58990

Frequency of Practice: Group 3Force AdaptivityAdam Konluk (Score : 0)

Your First Mindfulness Meditation Practice



Next

HELP

Smart Sparrow - WorkspaceFrequency of Practice: Group 3Support

https://aelp.smartsparrow.com/bronte/readonly/58990

Frequency of Practice: Group 3Force AdaptivityAdam Konluk (Score : 0)

Mindfulness Practice

Mindfulness meditation doesn't always have to be guided. For this final meditation, apply what you've learned in your previous meditations to meditating while listening to a piece of music.

While listening to this song, focus on the sounds and bring your attention back to the music when you get distracted. If any emotions arise, try to observe them as they are and don't try to change them or influence them. Let the emotions ebb and flow naturally and notice how they affect your thinking.

Press next when you're ready to get started! It might help to keep your eyes closed for this meditation, but only do what you're comfortable with.

Next

### Mindfulness Practice



Finish



HELP

What is your comfort level with mindfulness and meditation?

- ☐ I feel confident and ready to meditate on my own
- ☐ I may be able to meditate on my own, but I probably need more guidance
- ☐ I need more guidance before I am able to meditate on my own
- ☐ I am not comfortable meditating, even with guidance

How motivated do you feel to practice mindfulness or meditation?

- ☐ I'm very motivated to practice them
- ☐ I'm looking forward to learning and practicing them
- ☐ I'll give it a try, but I am not sure about this
- ☐ I don't want to practice mindfulness and meditation

Next



HELP

What ideas and emotions do you have about mindfulness and meditation?

- ☐ Calming
- ☐ Girty
- ☐ New-agey
- ☐ Trendy
- ☐ Useful
- ☐ Important
- ☐ Lame
- ☐ Fluffy
- ☐ Stress reducing
- ☐ Useless

Next



HELP

If you were asked about it, how would you describe mindfulness?

How comfortable were you with the length of this lesson?

- ☐ It was difficult to sit for so long
- ☐ I was starting to get a bit antsy
- ☐ It could have been a little shorter
- ☐ It was just right
- ☐ It should be longer

Next



What are your thoughts about the time you spent practicing meditation in this lesson?

- ☐ Helpful
- ☐ Repetitive
- ☐ Annoying
- ☐ Not useful
- ☐ Fun
- ☐ Nice
- ☐ Frustrating

How enjoyable was the time you spent practicing meditation in this lesson?

- ☐ Awesome
- ☐ Okay
- ☐ Meh
- ☐ Annoying
- ☐ I'm just glad it's over

Next



Did you feel more empowered to practice mindfulness with repeated practice?

- ☐ Yes
- ☐ No

Which of the mindfulness practices did you find most effective for you?

- ☐ Focused breathing
- ☐ Mindfulness meditation
- ☐ Mindfulness meditation with focus on negative emotions
- ☐ Mindfulness while listening to music
- ☐ None of these were particularly effective

Finish





## Group 1 and 2

There are no additional screens. Some screens from Group 3 are not included in Group 1 and 2.

# Group 4

Frequency of Practice: Group 4

Force Adaptivity

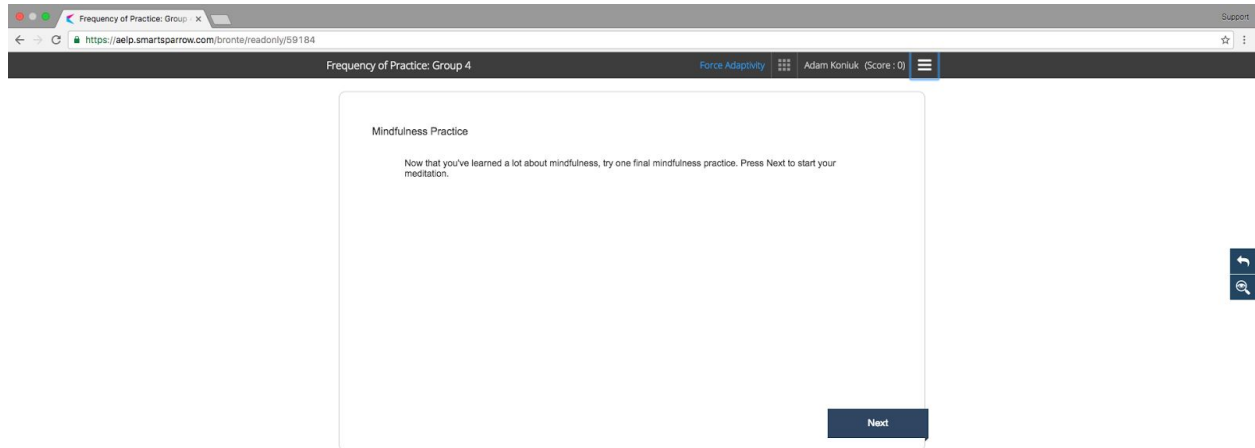
Adam Konluk (Score : 0)

Support

Mindfulness Practice

After learning about some of the components of mindfulness, let see how your second mindfulness practice goes! Press Next to start your meditation.

Next



## Video URLs

Mindfulness Definition: <https://youtu.be/w6T02g5hnT4>

Meditation Onboarding: <https://youtu.be/rqoxYKtEWEc>

Guided Body Scan: <https://youtu.be/ZM3eYRODNbc>

Unguided Music Meditation: (audio only) <https://www.youtube.com/watch?v=RXV0nU3zs6A>

# Refinement and Validation of a Military Emotional Intelligence Training Program



Opportunity: W81XWH-15-JWMRP

PI: William D. Killgore Ph.D.

Org: University of Arizona

Award Amount: \$5,978K

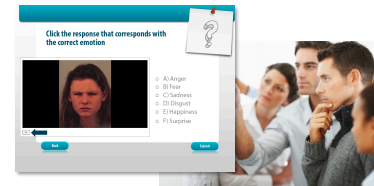
## Study Aims

- 1) Identify key training components (i.e., content, frequency, duration) that lead to the greatest improvement in measured skills across all EI domains
- 2) Identify the neural mechanisms underlying the observed changes in EI abilities
- 3) Determine the effectiveness of the EI training program for enhancing military performance and sustaining psychological health during stressful military operations/activities/deployments

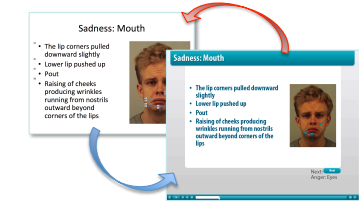
## Approach

We have demonstrated the effectiveness of a brief 6-lesson pilot version of a training program to enhance EI skills in military personnel. We plan to enhance the effectiveness of the program through iterative refinement, efficacy testing in healthy samples, neuroimaging of brain mechanisms, and ultimate validation in military samples. The goal is to develop a program that enhances emotional performance and mental health during military training and deployment.

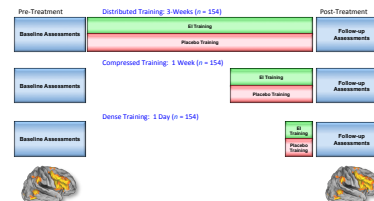
### Task 1: Retool Pilot Version



### Task 2: Iterative Refinement of Modules



### Tasks 3 & 4: Efficacy + Neuroimaging



### Tasks 5 & 6: Effectiveness—Military Settings



**Study involves 5 Tasks:** 1) Retooling pilot version of program, 2) refining the materials through an iterative process, 3) testing efficacy, 4) neuroimaging of brain mechanisms, 5) testing effectiveness in ROTC cadets, and 6) effectiveness in deploying Soldiers

## Timeline and Cost

Activities	CY	16	17	18	19
Study Preparation					
Task 1: Retooling					
Task 2: Refinement					
Task 3: Efficacy					
Task 4: Neuroimaging					
Task 5: ROTC Effectiveness					
Task 6: Deployment Effectiveness					
<b>Estimated Total Budget (\$K)*</b>		<b>\$1,384</b>	<b>\$1,659</b>	<b>\$1,601</b>	<b>\$1,333</b>

Updated: 13 MAY 2017

\*Includes Direct + Indirect Costs

## Goals/Milestones

**FY16 Goal** – Study Preparation, Refine EI Program

- ☒ Prepare materials; complete agreements for use; IRB approvals
- ☒ Complete redesign of basic pilot EI program (Task 1)
- ☐ Complete iterative refinement of program ( $n = 300$ ) (Task 2)

**FY17 Goal** – Start Efficacy Trial & Neuroimaging; Start Military Trials

- ☐ Collect data on  $n = 231$  healthy controls (Task 3)
- ☐ Collect Summer ROTC Field Course data ( $n = 40$ ) (Task 5)
- ☐ Begin Pre-deployment Assessment & EI Training (Task 6)

**FY18 Goal** – Continue Data Collection

- ☐ Collect data on  $n = 231$  healthy controls (40 neuroimaging) (Task 4)
- ☐ Collect Summer ROTC Field Course data ( $n = 40$ )

**FY19 Goal** – Complete Data Collection, Analysis, and Publication

- ☐ Complete Summer ROTC Field Course data ( $n = 40$ ) (Task 5)
- ☐ Complete post-deployment assessments (Task 6)
- ☐ Analyze and Publish findings

**Budget Expenditure to date**

Projected Expenditure: \$1,384K; Actual Expenditure: \$611,956.66

## Curriculum Vitae

**DATE PREPARED:** October 13, 2016

**NAME:** WILLIAM DALE (SCOTT) KILLGORE

**OFFICE ADDRESS:** 7303B  
Department of Psychiatry  
University of Arizona HSC  
1501 North Campbell Ave.  
PO Box 245002  
Tucson, AZ 85724 United States

**HOME ADDRESS:** 7256 E Camino Valle Verde  
Tucson, AZ 85715 United States

**WORK PHONE:** (520) 621-0605

**WORK EMAIL:** [Killgore@psychiatry.arizona.edu](mailto:Killgore@psychiatry.arizona.edu)

**WORK FAX:** (520) 626-6050

**PLACE AND DATE OF BIRTH** Anchorage Alaska, September 2, 1965

**CITIZENSHIP** USA

### CHRONOLOGY OF EDUCATION

8/83 - 5/85 A.A. (Liberal Arts), San Antonio College  
8/83 - 5/85 A.A.S (Radio-TV-Film), San Antonio College  
8/85 - 5/90 B.A. (Psychology), *Summa cum laude* with Distinction, University of New Mexico  
8/90 - 5/92 M.A. (Clinical Psychology), Texas Tech University  
8/92 - 8/96 Ph.D. (Clinical Psychology), Texas Tech University  
Dissertation Title: *Development and validation of a new instrument for the measurement of transient mood states: The facial analogue mood scale (FAMS)*. Lubbock, TX: Texas Tech University;1995. Advisor: Bill Locke, Ph.D.

### POST-DOCTORAL TRAINING

8/95 - 7/96 Predoctoral Fellow, Clinical Psychology, Yale School of Medicine  
8/96 - 7/97 Postdoctoral Fellow, Clinical Neuropsychology, University of OK Health Sciences Center  
8/97 - 7/99 Postdoctoral Fellow, Clinical Neuropsychology, University of Pennsylvania Medical School  
7/99 - 9/00 Research Fellow, Neuroimaging, McLean Hospital/ Harvard Medical School  
9/13 - 5/14 Certificate in Applied Biostatistics, Harvard Medical School

### LICENSURE/CERTIFICATION

2001 - Licensed Psychologist, #966, State of New Hampshire

## **CHRONOLOGY OF EMPLOYMENT**

### ***Academic Appointments***

10/00 - 8/02 Instructor in Psychology in the Department of Psychiatry  
Harvard Medical School, Boston, MA

9/02 - 7/07 Clinical Instructor in Psychology in the Department of Psychiatry  
Harvard Medical School, Boston, MA

8/07 - 10/10 Instructor in Psychology in the Department of Psychiatry  
Harvard Medical School, Boston, MA

4/08- Faculty Affiliate, Division of Sleep Medicine  
Harvard Medical School, Boston, MA

10/10 - 10/12 Assistant Professor of Psychology in the Department of Psychiatry  
Harvard Medical School, Boston, MA

10/12 - 6/14 Associate Professor of Psychology in the Department of Psychiatry  
Harvard Medical School, Boston, MA

7/14- Associate Professor of Psychology in the Department of Psychiatry (part-time)  
Harvard Medical School, Boston, MA

7/14- Professor of Psychiatry—Tenured  
University of Arizona College of Medicine, Tucson, AZ

7/14- Professor of Medical Imaging—Non TE  
University of Arizona College of Medicine, Tucson, AZ

9/14 Professor of Psychology—Non TE  
University of Arizona College of Science, Tucson, AZ

### ***Hospital/Clinical/Institutional Appointments***

10/00 - 8/02 Assistant Research Psychologist, McLean Hospital, Belmont, MA

8/02 - 7/04 Research Psychologist, Department of Behavioral Biology, Walter Reed Army Institute of Research, Silver Spring, MD

7/04 - 10/07 Chief, Neurocognitive Performance Branch, Walter Reed Army Institute of Research, Silver Spring, MD

10/07 - 3/10 Chief Psychologist, GovSource, Inc., U.S. Department of Defense (DoD) Contractor

8/08 Consulting Psychologist, The Brain Institute, University of Utah

9/02 - 4/05 Special Volunteer, National Institute on Deafness and Other Communication Disorders (NIDCD), National Institutes of Health (NIH), Bethesda, MD

9/02 - 7/07 Research Consultant, McLean Hospital, Belmont, MA

8/05 - 5/06 Neuropsychology Postdoctoral Research Program Training Supervisor, Walter Reed Hospital, Washington, DC

8/07 - Research Psychologist, McLean Hospital, Belmont, MA

7/11 - 6/14 Director, Social Cognitive, and Affective Neuroscience (SCAN) Laboratory, McLean Hospital, Belmont, MA

7/14- Director, Social, Cognitive, and Affective Neuroscience (SCAN) Laboratory, University of Arizona, Tucson, AZ

### ***Military Positions***

11/01 - 8/02 First Lieutenant, Medical Service Corps, United States Army Reserve (USAR)

8/02 - 7/05 Captain, Medical Service Corps, United States Army-Active Regular Army (RA)  
 8/05 - 10/07 Major, Medical Service Corps, United States Army-Active Regular Army (RA)  
 10/07 - 7/12 Major, Medical Service Corps, United States Army Reserve (USAR)  
 7/12 - Lieutenant Colonel, Medical Service Corps, United States Army Reserve (USAR)

## **HONORS AND AWARDS**

1990 Outstanding Senior Honors Thesis in Psychology, University of New Mexico  
 1990-1995 Maxey Scholarship in Psychology, Texas Tech University  
 2001 Rennick Research Award, Co-Author, International Neuropsychological Society  
 2002 Honor Graduate, AMEDD Officer Basic Course, U.S. Army Medical Department Center and School  
 2002 Lynch Leadership Award Nominee, AMEDD Officer Basic Course, U.S. Army Medical Department Center and School  
 2003 Outstanding Research Presentation Award, 2003 Force Health Protection Conference, U.S. Army Center for Health Promotion and Preventive Medicine  
 2003 Who's Who in America  
 2004 Who's Who in Medicine and Healthcare  
 2005 Edward L. Buescher Award for Excellence in Research by a Young Scientist, Walter Reed Army Institute of Research (WRAIR) Association  
 2009 Merit Poster Award, International Neuropsychological Society  
 2009 Outstanding Research Presentation Award, 2009 Force Health Protection Conference, U.S. Army Center for Health Promotion and Preventive Medicine  
 2010 Best Paper Award, Neuroscience, 27<sup>th</sup> U.S. Army Science Conference  
 2011 Published paper included in *Best of Sleep Medicine 2011*  
 2011 Blue Ribbon Finalist, 2011 Top Poster Award in Clinical and Translational Research, Society of Biological Psychiatry  
 2012 Defense Advance Research Projects Agency (DARPA) Young Faculty Award in Neuroscience  
 2014 Blue Ribbon Finalist, 2014 Top Poster Award in Basic Neuroscience, Society of Biological Psychiatry  
 2014 Harvard Medical School Excellence in Mentoring Award Nominee  
 2014 AASM Young Investigator Award (co-author), Honorable Mention, American Academy of Sleep Medicine

## **SERVICE/OUTREACH**

### ***Local/State Service/Outreach***

2003 Scientific Review Committee, Walter Reed Army Institute of Research (WRAIR), Silver Spring, MD  
 2005 Scientific Review Committee, Walter Reed Army Institute of Research (WRAIR), Silver Spring, MD  
 2012- McLean Hospital Research Committee, McLean Hospital, Belmont, MA

### ***National/International Service/Outreach***

2004	University of Alabama, Clinical Nutrition Research Center (UAB CNRC) Pilot/Feasibility Study Program Review Committee
2006	U.S. Small Business Administration, Small Business Technology Transfer (STTR) Program Review Committee
2006	Cognitive Performance Assessment Program Area Steering Committee, U.S. Army Military Operational Medicine Research Program Funding Panel
2007	Cognitive Performance Assessment Program Area Steering Committee, U.S. Army Military Operational Medicine Research Program Funding Panel
2008	United States Army Medical Research and Materiel Command (USAMRMC) Congressionally Directed Medical Research Programs (CDMRP) Extramural Grant Review Panel
2009	NIH-CSR Brain Disorders and Clinical Neuroscience N02 Member Study Conflict Section Review Panel
2009	Sleep Physiology and Fatigue Interventions Program Area Steering Committee, U.S. Army Military Operational Medicine Research Program
2009	Scotland, UK, Biomedical and Therapeutic Research Committee, Grant Reviewer
2010	Canada, Social Sciences and Humanities Research Council of Canada, Grant Reviewer
2011	National Science Foundation (NSF) Grant Reviewer
2011-	National Network of Depression Centers (NNDC), Military Task Group
2011	Israel, Israel Science Foundation (ISF), Grant Reviewer
2011	Scientific Review Committee, US Army Institute of Environmental Medicine (USARIEM)
2012	National Science Foundation (NSF) Grant Reviewer
2012-	American Academy of Sleep Medicine, Member
2013	Israel, Israel Science Foundation (ISF), Grant Reviewer
2014-	Organization for Human Brain Mapping, Member
2015-	Human Affectome Project Advisory Board Member

### ***Departmental Committees***

2006	Chair, Undergraduate Honors Thesis Committee, Jessica Richards, Department of Psychology, University of Maryland, Baltimore County, MD
2012-	Member, Research Committee, McLean Hospital, Belmont, MA
2014	Psychiatry Senior Research Manager Candidate Search Committee, Department of Psychiatry, University of Arizona, Tucson, AZ
2014-2015	Member, Faculty Search Committee, Department of Psychology, University of Arizona, Tucson, AZ.
2014-2016	Member, Comprehensive Examination Committee, Natalie Bryant, Department of Psychology, University of Arizona, Tucson, AZ
2014-2015	Chair/Research Faculty Mentor, Undergraduate Honors Thesis Committee, Haley Kent, Department of Biochemistry, University of Arizona, Tucson, AZ
2014-	Member, Psychiatry Research Investigator Committee, Department of Psychiatry, University of Arizona, Tucson, AZ.
2015	Member, Dissertation Committee, Ryan S. Smith, Ph.D., Department of Psychology, University of Arizona, Tucson AZ.
2015-	Member, Mentoring Committee, Department of Psychiatry, University of Arizona, Tucson, AZ
2016	Member, Dissertation Committee, Brian Arizmendi, Department of Psychology,



	University of Arizona, Tucson, AZ
2016	Member, Masters Thesis Committee, Saren Seeley, Department of Psychology, University of Arizona, Tucson, AZ
2016	Member, Masters Thesis Committee, Mairead McConnell, Department of Psychology, University of Arizona, Tucson, AZ
2016	Faculty Advisor, Undergraduate Honor Thesis Committee, Matthew Nettles, Neuroscience/Cognitive Science, University of Arizona, Tucson, AZ

### ***University Committees***

2006	External Member, Doctoral Thesis Committee, Belinda J. Liddle, Ph.D., University of Sydney, Australia
2014	Ad Hoc Member, Interview Committee for Defense and Security Research Institute Director Position, University of Arizona, Tucson, AZ.
2014-	Member, Mechanisms of Emotion, Social Relationships, and Health Interdisciplinary Developing Research Program, Clinical and Translational Science Institute, BIO5, University of Arizona, Tucson, AZ
2015	Vice President's Executive Committee for Defense and Security Strategic Planning, University of Arizona, Tucson, AZ
2015	Imaging Excellence Cluster Hire Search Committee, University of Arizona, Tucson, AZ
2015	MRI Operations Committee, University of Arizona, Tucson, AZ
2015-2016	Member, Neuroimaging Cluster Hire Faculty Search Committee, University of Arizona, Tucson, AZ

### ***Editorial Board Membership***

2009-	Editorial Board Member, International Journal of Eating Disorders
2012-	Editorial Board Member, Dataset Papers in Neuroscience
2012-	Editorial Board Member, Dataset Papers in Psychiatry
2012-	Editor, Journal of Sleep Disorders: Treatment and Care

### ***Ad Hoc Journal Reviewer***

2001-2012	Reviewer, Psychological Reports
2001-2012	Reviewer, Perceptual and Motor Skills
2002	Reviewer, American Journal of Psychiatry
2002-2013	Reviewer, Biological Psychiatry
2003	Reviewer, Clinical Neurology and Neurosurgery
2004-2016	Reviewer, NeuroImage
2004-2006	Reviewer, Neuropsychologia
2004-2016	Reviewer, Journal of Neuroscience
2004	Reviewer, Consciousness and Cognition
2005	Reviewer, Experimental Brain Research
2005	Reviewer, Schizophrenia Research
2005-2012	Reviewer, Archives of General Psychiatry
2005	Reviewer, Behavioral Brain Research
2005-2009	Reviewer, Human Brain Mapping
2005-2013	Reviewer, Psychiatry Research: Neuroimaging

2006	Reviewer, Journal of Abnormal Psychology
2006	Reviewer, Psychopharmacology
2006	Reviewer, Developmental Science
2006	Reviewer, Acta Psychologica
2006, 2015	Reviewer, Neuroscience Letters
2006-2016	Reviewer, Journal of Sleep Research
2006-2016	Reviewer, Physiology and Behavior
2006-2014	Reviewer, SLEEP
2007	Reviewer, Journal of Clinical and Experimental Neuropsychology
2008	Reviewer, European Journal of Child and Adolescent Psychiatry
2008	Reviewer, Judgment and Decision Making
2008-2010	Reviewer, Aviation, Space, & Environmental Medicine
2008	Reviewer, Journal of Psychophysiology
2008	Reviewer, Brazilian Journal of Medical and Biological Research
2008	Reviewer, The Harvard Undergraduate Research Journal
2008	Reviewer, Bipolar Disorders
2008-2013	Reviewer, Chronobiology International
2008	Reviewer, International Journal of Obesity
2009	Reviewer, European Journal of Neuroscience
2009-2015	Reviewer, International Journal of Eating Disorders
2009	Reviewer, Psychophysiology
2009	Reviewer, Traumatology
2009	Reviewer, Clinical Medicine: Therapeutics
2009	Reviewer, Acta Pharmacologica Sinica
2009	Reviewer, Collegium Antropologicum
2009	Reviewer, Journal of Psychopharmacology
2009-2014	Reviewer, Obesity
2009	Reviewer, Scientific Research and Essays
2009	Reviewer, Child Development Perspectives
2009-2010	Reviewer, Personality and Individual Differences
2009-2010	Reviewer, Noise and Health
2009-2010	Reviewer, Sleep Medicine
2010	Reviewer, Nature and Science of Sleep
2010	Reviewer, Psychiatry and Clinical Neurosciences
2010	Reviewer, Learning and Individual Differences
2010	Reviewer, Cognitive, Affective, and Behavioral Neuroscience
2010	Reviewer, BMC Medical Research Methodology
2010-2011	Reviewer, Journal of Adolescence
2010-2012	Reviewer, Brain Research
2011	Reviewer, Brain
2011	Reviewer, Social Cognitive and Affective Neuroscience
2011	Reviewer, Journal of Traumatic Stress
2011	Reviewer, Social Neuroscience
2011-2014	Reviewer, Brain and Cognition
2011	Reviewer, Frontiers in Neuroscience
2011-2012	Reviewer, Sleep Medicine Reviews
2012	Reviewer, Journal of Experimental Psychology: General
2012	Reviewer, Ergonomics

2012	Reviewer, Behavioral Sleep Medicine
2012	Reviewer, Neuropsychology
2012	Reviewer, Emotion
2012	Reviewer, JAMA
2012	Reviewer, BMC Neuroscience
2012-2015	Reviewer, Cognition and Emotion
2012	Reviewer, Journal of Behavioral Decision Making
2012	Reviewer, Psychosomatic Medicine
2012-2014	Reviewer, PLoS One
2012	Reviewer, American Journal of Critical Care
2012-2014	Reviewer, Journal of Sleep Disorders: Treatment and Care
2013	Reviewer, Experimental Psychology
2013	Reviewer, Clinical Interventions in Aging
2013	Reviewer, Frontiers in Psychology
2013	Reviewer, Brain Structure and Function
2013	Reviewer, Appetite
2013-2016	Reviewer, JAMA Psychiatry
2014	Reviewer, Acta Psychologica
2014	Reviewer, Neurology
2014	Reviewer, Applied Neuropsychology: Child
2014-2016	Reviewer, Journal of Applied Psychology
2015	Reviewer, Early Childhood Research Quarterly
2015	Reviewer, Behavioral Neuroscience
2015	Reviewer, Scientific Reports
2016	Reviewer, Neuroscience & Biobehavioral Reviews
2016	Reviewer, Psychological Science
2016	Reviewer, Medicine & Science in Sports and Exercise
2016	Reviewer, Archives of Clinical Neuropsychology

## **PUBLICATIONS/CREATIVE ACTIVITY**

### ***Refereed Journal Articles***

1. **Killgore WD.** The Affect Grid: a moderately valid, nonspecific measure of pleasure and arousal. Psychol Rep. 83(2):639-42, 1998.
2. **Killgore WD.** Empirically derived factor indices for the Beck Depression Inventory. Psychol Rep. 84(3 Pt 1):1005-13, 1999.
3. **Killgore WD.** Affective valence and arousal in self-rated depression and anxiety. Percept Mot Skills. 89(1):301-4, 1999.
4. **Killgore WD, Adams RL.** Prediction of Boston Naming Test performance from vocabulary scores: preliminary guidelines for interpretation. Percept Mot Skills. 89(1):327-37, 1999.
5. **Killgore WD, Gangestad SW.** Sex differences in asymmetrically perceiving the intensity of facial expressions. Percept Mot Skills. 89(1):311-4, 1999.

6. **Killgore WD.** The visual analogue mood scale: can a single-item scale accurately classify depressive mood state? *Psychol Rep.* 85(3 Pt 2):1238-43, 1999.
7. **Killgore WD, DellaPietra L, Casasanto DJ.** Hemispheric laterality and self-rated personality traits. *Percept Mot Skills.* 89(3 Pt 1):994-6, 1999.
8. **Killgore WD, Glosser G, Casasanto DJ, French JA, Alsop DC, Detre JA.** Functional MRI and the Wada test provide complementary information for predicting post-operative seizure control. *Seizure.* 8(8):450-5, 1999.
9. **Killgore WD.** Evidence for a third factor on the Positive and Negative Affect Schedule in a college student sample. *Percept Mot Skills.* 90(1):147-52, 2000.
10. **Killgore WD, Dellapietra L.** Item response biases on the logical memory delayed recognition subtest of the Wechsler Memory Scale-III. *Psychol Rep.* 86(3 Pt 1):851-7, 2000.
11. **Killgore WD, Casasanto DJ, Yurgelun-Todd DA, Maldjian JA, Detre JA.** Functional activation of the left amygdala and hippocampus during associative encoding. *Neuroreport.* 11(10):2259-63, 2000.
12. Yurgelun-Todd DA, Gruber SA, Kanayama G, **Killgore WD, Baird AA, Young AD.** fMRI during affect discrimination in bipolar affective disorder. *Bipolar Disord.* 2(3 Pt 2):237-48, 2000.
13. **Killgore WD.** Sex differences in identifying the facial affect of normal and mirror-reversed faces. *Percept Mot Skills.* 91(2):525-30, 2000.
14. **Killgore WD, DellaPietra L.** Using the WMS-III to detect malingering: empirical validation of the rarely missed index (RMI). *J Clin Exp Neuropsychol.* 22(6):761-71, 2000.
15. **Killgore WD.** Academic and research interest in several approaches to psychotherapy: a computerized search of literature in the past 16 years. *Psychol Rep.* 87(3 Pt 1):717-20, 2000.
16. Maldjian JA, Detre JA, **Killgore WD, Judy K, Alsop D, Grossman M, Glosser G.** Neuropsychologic performance after resection of an activation cluster involved in cognitive memory function. *AJR Am J Roentgenol.* 176(2):541-4, 2001.
17. **Killgore WD, Oki M, Yurgelun-Todd DA.** Sex-specific developmental changes in amygdala responses to affective faces. *Neuroreport.* 12(2):427-33, 2001.
18. **Killgore WD, Yurgelun-Todd DA.** Sex differences in amygdala activation during the perception of facial affect. *Neuroreport.* 12(11):2543-7, 2001.
19. Casasanto DJ, **Killgore WD, Maldjian JA, Glosser G, Alsop DC, Cooke AM, Grossman M, Detre JA.** Neural correlates of successful and unsuccessful verbal memory encoding. *Brain Lang.* 80(3):287-95, 2002.

20. **Killgore WD.** Laterality of lesions and trait-anxiety on working memory performance. *Percept Mot Skills.* 94(2):551-8, 2002.
21. **Killgore WD, Cupp DW.** Mood and sex of participant in perception of happy faces. *Percept Mot Skills.* 95(1):279-88, 2002.
22. Yurgelun-Todd DA, **Killgore WD**, Young AD. Sex differences in cerebral tissue volume and cognitive performance during adolescence. *Psychol Rep.* 91(3 Pt 1):743-57, 2002.
23. Yurgelun-Todd DA, **Killgore WD**, Cintron CB. Cognitive correlates of medial temporal lobe development across adolescence: a magnetic resonance imaging study. *Percept Mot Skills.* 96(1):3-17, 2003.
24. **Killgore WD**, Young AD, Femia LA, Bogorodzki P, Rogowska J, Yurgelun-Todd DA. Cortical and limbic activation during viewing of high- versus low-calorie foods. *Neuroimage.* 19(4):1381-94, 2003.
25. **Killgore WD**, Yurgelun-Todd DA. Activation of the amygdala and anterior cingulate during nonconscious processing of sad versus happy faces. *Neuroimage.* 21(4):1215-23, 2004.
26. **Killgore WD**, Yurgelun-Todd DA. Sex-related developmental differences in the lateralized activation of the prefrontal cortex and amygdala during perception of facial affect. *Percept Mot Skills.* 99(2):371-91, 2004.
27. **Killgore WD**, Glahn DC, Casasanto DJ. Development and Validation of the Design Organization Test (DOT): a rapid screening instrument for assessing visuospatial ability. *J Clin Exp Neuropsychol.* 27(4):449-59, 2005.
28. **Killgore WD**, Yurgelun-Todd DA. Body mass predicts orbitofrontal activity during visual presentations of high-calorie foods. *Neuroreport.* 16(8):859-63, 2005.
29. Wesensten NJ, **Killgore WD**, Balkin TJ. Performance and alertness effects of caffeine, dextroamphetamine, and modafinil during sleep deprivation. *J Sleep Res.* 14(3):255-66, 2005.
30. **Killgore WD**, Yurgelun-Todd DA. Social anxiety predicts amygdala activation in adolescents viewing fearful faces. *Neuroreport.* 16(15):1671-5, 2005.
31. **Killgore WD**, Yurgelun-Todd DA. Developmental changes in the functional brain responses of adolescents to images of high and low-calorie foods. *Dev Psychobiol.* 47(4):377-97, 2005.
32. Kahn-Greene ET, Lipizzi EL, Conrad AK, Kamimori GH, **Killgore WD**. Sleep deprivation adversely affects interpersonal responses to frustration. *Pers Individ Dif.* 41(8):1433-1443, 2006.
33. McBride SA, Balkin TJ, Kamimori GH, **Killgore WD**. Olfactory decrements as a function of two nights of sleep deprivation. *J Sens Stud.* 24(4):456-63, 2006.

34. **Killgore WD**, Yurgelun-Todd DA. Ventromedial prefrontal activity correlates with depressed mood in adolescent children. *Neuroreport*. 17(2):167-71, 2006.
35. **Killgore WD**, Vo AH, Castro CA, Hoge CW. Assessing risk propensity in American soldiers: preliminary reliability and validity of the Evaluation of Risks (EVAR) scale--English version. *Mil Med*. 171(3):233-9, 2006.
36. **Killgore WD**, Balkin TJ, Wesensten NJ. Impaired decision making following 49 h of sleep deprivation. *J Sleep Res*. 15(1):7-13, 2006.
37. **Killgore WD**, Stetz MC, Castro CA, Hoge CW. The effects of prior combat experience on the expression of somatic and affective symptoms in deploying soldiers. *J Psychosom Res*. 60(4):379-85, 2006.
38. **Killgore WD**, McBride SA, Killgore DB, Balkin TJ. The effects of caffeine, dextroamphetamine, and modafinil on humor appreciation during sleep deprivation. *Sleep*. 29(6):841-7, 2006.
39. **Killgore WD**, McBride SA. Odor identification accuracy declines following 24 h of sleep deprivation. *J Sleep Res*. 15(2):111-6, 2006.
40. **Killgore WD**, Yurgelun-Todd DA. Affect modulates appetite-related brain activity to images of food. *Int J Eat Disord*. 39(5):357-63, 2006.
41. Kendall AP, Kautz MA, Russo MB, **Killgore WD**. Effects of sleep deprivation on lateral visual attention. *Int J Neurosci*. 116(10):1125-38, 2006.
42. Yurgelun-Todd DA, **Killgore WD**. Fear-related activity in the prefrontal cortex increases with age during adolescence: a preliminary fMRI study. *Neurosci Lett*. 406(3):194-9, 2006.
43. **Killgore WD**, Killgore DB, Ganesan G, Krugler AL, Kamimori GH. Trait-anger enhances effects of caffeine on psychomotor vigilance performance. *Percept Mot Skills*. 103(3):883-6, 2006.
44. **Killgore WD**, Yurgelun-Todd DA. Unconscious processing of facial affect in children and adolescents. *Soc Neurosci*. 2(1):28-47, 2007.
45. **Killgore WD**, Yurgelun-Todd DA. The right-hemisphere and valence hypotheses: could they both be right (and sometimes left)? *Soc Cogn Affect Neurosci*. 2(3):240-50, 2007.
46. **Killgore WD**, Killgore DB. Morningness-eveningness correlates with verbal ability in women but not men. *Percept Mot Skills*. 104(1):335-8, 2007.
47. **Killgore WD**, Killgore DB, Day LM, Li C, Kamimori GH, Balkin TJ. The effects of 53 hours of sleep deprivation on moral judgment. *Sleep*. 30(3):345-52, 2007.
48. Rosso IM, **Killgore WD**, Cintron CM, Gruber SA, Tohen M, Yurgelun-Todd DA. Reduced amygdala volumes in first-episode bipolar disorder and correlation with cerebral white matter. *Biol Psychiatry*. 61(6):743-9, 2007.

49. Kahn-Greene ET, Killgore DB, Kamimori GH, Balkin TJ, **Killgore WD**. The effects of sleep deprivation on symptoms of psychopathology in healthy adults. *Sleep Med.* 8(3):215-21, 2007.
50. **Killgore WD**. Effects of sleep deprivation and morningness-eveningness traits on risk-taking. *Psychol Rep.* 100(2):613-26, 2007.
51. **Killgore WD**, Gruber SA, Yurgelun-Todd DA. Depressed mood and lateralized prefrontal activity during a Stroop task in adolescent children. *Neurosci Lett.* 416(1):43-8, 2007.
52. **Killgore WD**, Yurgelun-Todd DA. Positive affect modulates activity in the visual cortex to images of high calorie foods. *Int J Neurosci.* 117(5):643-53, 2007.
53. Vo AH, Satori R, Jabbari B, Green J, **Killgore WD**, Labutta R, Campbell WW. Botulinum toxin type-a in the prevention of migraine: a double-blind controlled trial. *Aviat Space Environ Med.* 78(5 Suppl):B113-8, 2007.
54. **Killgore WD**, Yurgelun-Todd DA. Neural correlates of emotional intelligence in adolescent children. *Cogn Affect Behav Neurosci.* 7(2):140-51, 2007.
55. **Killgore WD**, Kendall AP, Richards JM, McBride SA. Lack of degradation in visuospatial perception of line orientation after one night of sleep loss. *Percept Mot Skills.* 105(1):276-86, 2007.
56. **Killgore WD**, Lipizzi EL, Kamimori GH, Balkin TJ. Caffeine effects on risky decision making after 75 hours of sleep deprivation. *Aviat Space Environ Med.* 78(10):957-62, 2007.
57. **Killgore WD**, Richards JM, Killgore DB, Kamimori GH, Balkin TJ. The trait of Introversion-Extraversion predicts vulnerability to sleep deprivation. *J Sleep Res.* 16(4):354-63, 2007.
58. **Killgore WD**, Kahn-Green ET, Killgore DB, Kamimori GH, Balkin TJ. Effects of acute caffeine withdrawal on Short Category Test performance in sleep-deprived individuals. *Percept Mot Skills.* 105(3 pt.2):1265-74, 2007.
59. **Killgore WD**, Killgore DB, McBride SA, Kamimori GH, Balkin TJ. Odor identification ability predicts changes in symptoms of psychopathology following 56 hours of sleep deprivation. *J Sensory Stud.* 23(1):35-51, 2008.
60. **Killgore WD**, Rupp TL, Grugle NL, Reichardt RM, Lipizzi EL, Balkin TJ. Effects of dextroamphetamine, caffeine and modafinil on psychomotor vigilance test performance after 44 h of continuous wakefulness. *J Sleep Res.* 17(3):309-21, 2008.
61. Huck NO, McBride SA, Kendall AP, Grugle NL, **Killgore WD**. The effects of modafinil, caffeine, and dextroamphetamine on judgments of simple versus complex emotional expressions following sleep deprivation. *Int. J Neuroscience.* 118(4):487-502, 2008.
62. **Killgore WD**, Kahn-Greene ET, Lipizzi EL, Newman RA, Kamimori GH, Balkin TJ. Sleep deprivation reduces perceived emotional intelligence and constructive thinking skills. *Sleep Med.* 9(5):517-26, 2008.

63. **Killgore WD**, Grugle NL, Killgore DB, Leavitt BP, Watlington GI, McNair S, Balkin TJ. Restoration of risk-propensity during sleep deprivation: caffeine, dextroamphetamine, and modafinil. *Aviat Space Environ Med.* 79(9):867-74, 2008.
64. **Killgore WD**, Muckle AE, Grugle NL, Killgore DB, Balkin TJ. Sex differences in cognitive estimation during sleep deprivation: effects of stimulant countermeasures. *Int J Neurosci.* 118(11):1547-57, 2008.
65. **Killgore WD**, Cotting DI, Thomas JL, Cox AL, McGurk D, Vo AH, Castro CA, Hoge CW. Post-combat invincibility: violent combat experiences are associated with increased risk-taking propensity following deployment. *J Psychiatr Res.* 42(13):1112-21, 2008.
66. **Killgore WD**, Gruber SA, Yurgelun-Todd DA. Abnormal corticostriatal activity during fear perception in bipolar disorder. *Neuroreport.* 19(15):1523-7, 2008.
67. **Killgore WD**, McBride SA, Killgore DB, Balkin TJ, Kamimori GH. Baseline odor identification ability predicts degradation of psychomotor vigilance during 77 hours of sleep deprivation. *Int. J Neurosci.* 118(9):1207-1225, 2008.
68. **Killgore WD**, Rosso HM, Gruber SA, Yurgelun-Todd DA. Amygdala volume and verbal memory performance in schizophrenia and bipolar disorder. *Cogn Behav Neur.* 22(1):28-37, 2009.
69. **Killgore WD**, Kahn-Greene ET, Grugle NL, Killgore DB, Balkin TJ. Sustaining executive functions during sleep deprivation: A comparison of caffeine, dextroamphetamine, and modafinil. *Sleep.* 32(2):205-16, 2009.
70. **Killgore WD**, Grugle NL, Reichardt RM, Killgore DB, Balkin TJ. Executive functions and the ability to sustain vigilance during sleep loss. *Aviat Space Environ Med.* 80(2):81-7, 2009.
71. Picchioni, D, **Killgore, WD**, Braun, AR, & Balkin, TJ. Positron emission tomography correlates of EEG microarchitecture waveforms during non-REM sleep. *Int J Neurosci.* 119: 2074-2099, 2009.
72. **Killgore, WD**, Lipizzi, EL, Grugle, NL, Killgore, DB, & Balkin, TJ. Handedness correlates with actigraphically measured sleep in a controlled environment. *Percept Mot Skills.* 109: 395-400, 2009.
73. **Killgore, WD**, Killgore, DB, Grugle, NL, & Balkin, TJ. Odor identification predicts executive function deficits during sleep deprivation. *Int J Neurosci,* 120: 328-334, 2010.
74. **Killgore, WD**, Ross, AJ, Kamiya, T, Kawada, Y, Renshaw, PF, & Yurgelun-Todd, DA. Citicoline affects appetite and cortico-limbic responses to images of high calorie foods. *Int J Eat Disord.* 43: 6-13, 2010.
75. **Killgore, WD**, & Yurgelun-Todd, DA. Cerebral correlates of amygdala responses during non-conscious perception of facial affect in adolescent and pre-adolescent children. *Cogn Neurosci,*



1: 33-43, 2010.

76. **Killgore, WD**, & Yurgelun-Todd, DA. Sex differences in cerebral responses to images of high vs low calorie food. *Neuroreport*, 21: 354-358, 2010.
77. **Killgore, WD**, Grugle, NL, Killgore, DB, & Balkin, TJ. Sex differences in self-reported risk-taking propensity on the Evaluation of Risks scale. *Percept Mot Skills*, 106: 693-700, 2010.
78. **Killgore, WD**, Kelley, AM, & Balkin, TJ. So you think you're bulletproof: Development and validation of the Invincibility Belief Index. *Mil Med*, 175: 499-508, 2010.
79. **Killgore, WD**, Castro, CA, & Hoge, CW. Preliminary Normative Data for the Evaluation of Risks Scale—Bubble Sheet Version (EVAR-B) for Large Scale Surveys of Returning Combat Veterans. *Mil Med*, 175: 725-731, 2010.
80. Britton, JC, Rauch, SL, Rosso, IM, **Killgore, WD**, Price, LM, Ragan, J, Chosak, A, Hezel, D, Pine, DS, Leibenluft, E, Pauls, DL, Jenike, MA, Stewart, SE. Cognitive inflexibility and frontal cortical activation in pediatric obsessive-compulsive disorder. *J Am Acad Child Adolesc Psychiatry*, 49: 944-953, 2010.
81. Britton, JC, Stewart, SE, **Killgore, WD**, Rosso, IM, Price, LM, Gold, AL, Pine, DS, Wilhelm, S, Jenike, MA, & Rauch, SL. Amygdala activation in response to facial expressions in pediatric obsessive-compulsive disorder. *Depress Anxiety*, 27: 643-651, 2010.
82. Rupp, TL, **Killgore, WD**, & Balkin, TJ. Socializing by day may affect performance by night: Vulnerability to sleep deprivation is differentially mediated by social exposure in extraverts vs. introverts. *Sleep*, 33: 1475-1485, 2010.
83. Rosso, IM, Makris, N, Britton, JC, Price, LM, Gold, AL, Zai, D, Bruyere, J, Deckersbach, T, **Killgore, WD**, & Rauch, SL. Anxiety sensitivity correlates with two indices of right anterior insula structure in specific animal phobia. *Depress Anxiety*, 27: 1104-1110, 2010.
84. **Killgore, WD**, Britton, JC, Price, LM, Gold, AL, Deckersbach, T, & Rauch, SL. Neural correlates of anxiety sensitivity during masked presentation of affective faces. *Depress Anxiety*, 28: 243-249, 2011.
85. **Killgore, WD**, Kamimori, GH, & Balkin, TJ. Caffeine protects against increased risk-taking propensity during severe sleep deprivation. *J Sleep Res* 20: 395-403, 2011.
86. Capaldi, VF, Guerrero, ML, & **Killgore, WD**. Sleep disruption among returning combat veterans from Iraq and Afghanistan. *Mil Med*, 176: 879-888, 2011.
87. **Killgore, WD**, Grugle, NL, & Balkin, TJ. Gambling when sleep deprived: Don't bet on stimulants. *Chronobiol Int*, 29: 43-54, 2012
88. Gruber, SA, Dahlgren, MK, Sagar, KA, Gonenc, A, & **Killgore, WD**. Age of onset of marijuana use impacts inhibitory processing. *Neurosci Lett* 511(2):89-94, 2012.

89. **Killgore, WD**, Capaldi, VF, & Guerrero, ML. Nocturnal polysomnographic correlates of daytime sleepiness. *Psychol Rep*, 110(10), 63-72, 2012.
90. **Killgore, WD**, Weber, M, Schwab, ZJ, DelDonno, SR, Kipman, M, Weiner, MR, & Rauch, SL. Grey matter correlates of trait and ability models of emotional intelligence. *Neuroreport* 23, 551-555, 2012.
91. **Killgore, WD**, Schwab, ZJ, Kipman, M, DelDonno, SR, Weber, M. Voxel-based morphometric grey matter correlates of daytime sleepiness. *Neurosci Lett*, 518(1), 10-13, 2012.
92. **Killgore, WD**, Schwab, ZJ, & Weiner, MR. Self-reported nocturnal sleep duration is associated with next-day resting state functional connectivity. *Neuroreport*, 23, 741-745, 2012.
93. **Killgore, WD**, & Schwab, ZJ. Sex differences in the association between physical exercise and cognitive ability. *Perceptual and Motor Skills*, 115, 605-617, 2012.
94. Kipman, M, Weber, M, Schwab, ZJ, DelDonno, SR, & **Killgore, WD**. A funny thing happened on the way to the scanner: Humor detection correlates with gray matter volume. *Neuroreport*, 23, 1059-1064, 2012.
95. **Killgore, WD**, Schwab, ZJ, Weber, M, Kipman, M, DelDonno, SR, Weiner, MR, & Rauch, SL. Daytime sleepiness affects prefrontal regulation of food intake. *NeuroImage*, 71, 216-223, 2013.
96. **Killgore, WD**, Schwab, ZJ, Kipman, M, DelDonno, SR, & Weber, M. Insomnia-related complaints correlate with functional connectivity between sensory-motor regions. *Neuroreport*, 24, 233-240, 2013.
97. Weber, M, Webb, CA, DelDonno, SR, Kipman, M, Schwab, ZJ, Weiner, MR, & **Killgore, WD**. Habitual 'Sleep Credit' is associated with greater gray matter volume of the medial prefrontal cortex, higher emotional intelligence, and better mental health. *Journal of Sleep Research*, 22, 527-534, 2013.
98. Weber, M., **Killgore, WD**, Rosso, IM, Britton, JC, Schwab, ZJ, Weiner, MR, Simon, NM, Pollack, MH, & Rauch, SL. Voxel-based morphometric gray matter correlates of posttraumatic stress disorder. *Journal of Anxiety Disorders*, 27, 413-419, 2013.
99. **Killgore, WD**, Schwab, ZJ, Tkachenko, O, Webb, CA, DelDonno, SR, Kipman M, Rauch SL, and Weber M. Emotional intelligence correlates with functional responses to dynamic changes in facial trustworthiness. *Social Neuroscience*, 8, 334-346, 2013.
100. **Killgore, WD**. Self-reported sleep correlates with prefrontal-amygdala functional connectivity and emotional functioning. *Sleep*, 36, 1597-1608, 2013.
101. **Killgore, WD**, Kipman, M, Schwab, ZJ, Tkachenko, O, Preer, L, Gogel, H, Bark, JS, Mundy, EA, Olson, EA, & Weber, M. Physical exercise and brain responses to images of high calorie food. *Neuroreport*, 24, 962-967, 2013.

102. **Killgore, WD**, Weber, M, Schwab, ZJ, Kipman, M, DelDonno, SR, Webb, CA, & Rauch, SL. Cortico-limbic responsiveness to high-calorie food images predicts weight status among women. *International Journal of Obesity*, 37, 1435-1442, 2013.
103. Thomas, JJ, Hartman, AS, & **Killgore, WD**. Non-fat-phobic eating disorders: Why we need to investigate implicit associations and neural correlates. *International Journal of Eating Disorders*, 46, 416-419, 2013.
104. Webb, CA, Schwab, ZJ, Weber, M, DelDonno, SR, Kipman M, Weiner, MR, & **Killgore WD**. Convergent and divergent validity of integrative versus mixed model measures of emotional intelligence. *Intelligence*, 41, 149-156, 2013.
105. Weber, M, Webb, CA, & **Killgore, WD**. A brief and selective review of treatment approaches for sleep disturbance following traumatic brain injury. *Journal of Sleep Disorders and Therapy*, 2 (2), 1-5, 2013 (electronic publication).
106. **Killgore, WD**, Olson, EA, & Weber, M. Physical exercise habits correlate with gray matter volume of the hippocampus in healthy humans. *Scientific Reports*, 3, 3457, doi: 10.1038/srep0347, 2013.
107. **Killgore, WD**, Britton, JC, Schwab, ZJ, Price, LM, Weiner, MR, Gold, AL, Rosso, IM, Simon, NM, Pollack, MH, & Rauch, SL. Cortico-Limbic Responses to Masked Affective Faces Across PTSD, Panic Disorder, and Specific Phobia. *Depression & Anxiety*, 31, 150-159, 2014.
108. Cohen-Gilbert, JE, **Killgore, WD**, White, CN, Schwab, ZJ, Crowley, DJ, Covell, MJ, Sneider, JT, & Silveri, MM. Differential influence of safe versus threatening facial expressions on decision-making during an inhibitory control task in adolescence and adulthood. *Developmental Science*, 17, 212-223, 2014.
109. Dillon, DG, Rosso, IM, Pechtel, P, **Killgore, WD**, Rauch, SL, & Pizzagalli, DA. Peril and pleasure: An RDoC-inspired examination of threat responses and reward processing in anxiety and depression. *Depression and Anxiety*, 31, 233-249, 2014.
110. Preer, L, Tkachenko, O, Gogel, H., Bark, JS, & **Killgore, WD**. Personality traits associated with sleep initiation problems. *Journal of Sleep Disorders: Treatment and Care*, 3, 1-5, doi:10.4172/2325-9639.1000127, 2014.
111. Tkachenko, O, Olson, EA, Weber, M, Preer, LA, Gogel, H, & **Killgore, WD**. Sleep difficulties are associated with elevated symptoms of psychopathology. *Experimental Brain Research*, 232, 1567-1574, 2014.
112. Cui, J., Olson, EA, Weber, M, Schwab, ZJ, Rosso, SL, & **Killgore, WD**. Trait emotional suppression is associated with increased activation of the rostral anterior cingulate cortex in response to masked angry faces. *NeuroReport*, 25, 771-776, 2014.
113. Webb, CA, DelDonno, S, & **Killgore, WD**. The role of cognitive versus emotional intelligence in Iowa Gambling Task performance: What's emotion got to do with it? *Intelligence*, 44, 112-119,

2014.

114. **Killgore WD**, & Gogel, H. The Design Organization Test (DOT): Further Demonstration of Reliability and Validity as a Brief Measure of Visuospatial Ability. *Applied Neuropsychology: Adult*, 21, 297-309, 2014.
115. Webb, CA, Weber, M, Mundy, EA, & **Killgore, WD**. Reduced gray matter volume in the anterior cingulate, orbitofrontal cortex and thalamus as a function of mild depressive symptoms: A voxel-based morphometric analysis. *Psychological Medicine*, 44, 2833-2843, 2014.
116. **Killgore, WD**, Kamimori, GH, & Balkin, TJ. Caffeine improves the efficiency of planning and sequencing abilities during sleep deprivation. *Journal of Clinical Psychopharmacology*, 34, 660-662, 2014.
117. Rosso, IM, Olson, EA, Britton, JC, Steward, SE, Papadimitriou, G, **Killgore, WD**, Makris, N, Wilhelm, S, Jenike, MA, & Rauch SL. Brain white matter integrity and association with age at onset in pediatric obsessive-compulsive disorder. *Biology of Mood & Anxiety Disorders*, 4:13, 1-10, 2014.
118. Cui, J, Tkachenko, O, Gogel, H, Kipman, M, Preer, LA, Weber, M, Divatia, SC, Demers, LA, Olson, EA, Buchholz, JL, Bark, JS, Rosso, IM, Rauch, SL, & **Killgore, WD**. Microstructure of frontoparietal connections predicts individual resistance to sleep deprivation. *NeuroImage*, 106, 123-133, 2015.
119. Brennan, BP, Tkachenko, O, Schwab, ZJ, Juelich, RJ, Ryan, EM, Athey, AJ, Pope, HG, Jenike, MA, Baker, JT, **Killgore, WD**, Hudson, JJ, Jensen, JE, & Rauch, SL. An examination of rostral anterior cingulate cortex function and neurochemistry in obsessive-compulsive disorder. *Neuropsychopharmacology*, 40, 1866-1876, 2015.
120. Alkozei, A, & **Killgore WD**. Emotional intelligence is associated with reduced insula responses to angry faces. *NeuroReport*, 26, 567-571, 2015.
121. Mundy, EA, Weber, M, Rauch, SL, **Killgore, WD**, Simon, NM, Pollack, MH, & Rosso, IM. Adult anxiety disorders in relation to trait anxiety and perceived stress in childhood. *Psychological Reports*, 117, 1-17, 2015.
122. **Killgore, WD**, Vanuk, JR, Knight, SA, Markowski, SM, Pisner, D, Shane B, Fridman, A, & Alkozei, A. Daytime sleepiness is associated with altered resting thalamocortical connectivity. *NeuroReport*, 26, 779-784, 2015.
123. Olson, EA, Rosso, IM, Demers, LA, Divatia, S., & **Killgore, WD**. Sex differences in psychological factors associated with social discounting. *Journal of Behavioral Decision Making*, 29, 60-66, 2016.
124. Alkozei, A, Schwab, ZJ, & **Killgore, WD**. The role of emotional intelligence during an emotionally difficult decision-making task. *Journal of Nonverbal Behavior*, 40, 39-54, 2016.

125. **Killgore, WD**, Singh, P, Kipman, M, Pisner, D, Fridman, A, and Weber, M. Gray matter volume and executive functioning correlate with time since injury following mild traumatic brain injury. *Neuroscience Letters*, 612, 238-244, 2016.
126. Alkozei, A, Smith, R, & **Killgore, WD**. Exposure to blue wavelength light modulates anterior cingulate cortex activation in response to ‘uncertain’ versus ‘certain’ anticipation of positive stimuli. *Neuroscience Letters*, 616, 5-10, 2016.
127. Olson, EA, Weber, M, Rauch, SL, & **Killgore, WD**. Daytime sleepiness is associated with reduced integration of temporally distant outcomes on the Iowa Gambling Task. *Behavioral Sleep Medicine*, 14, 200-211, 2016.
128. **Killgore, WD**, Sonis, LA, Rosso, IM, & Rauch, SL. Emotional intelligence partially mediates the association between anxiety sensitivity and anxiety symptoms. *Psychological Reports*, 118, 23-40, 2016.
129. Freed, MC, Novak, LA, **Killgore, WD**, Rauch, S, Koehlmoos, TP, Ginsberg, JP, Krupnick, J, Rizzo, AS, Andrews, A, & Engle, CC. IRB and research regulatory delays within the military healthcare setting: Do they really matter? And if so, why and for whom? *American Journal of Bioethics*, 16, 30-37, 2016.
130. Alkozei, A, Smith, R, Pisner, D, Vanuk, JR, Markowski, SM, Fridman, A, Shane, BR, Knight, SA, & **Killgore, WD**. Exposure to blue light increases later functional activation of the prefrontal cortex during working memory. *SLEEP*, 3, 1671-1680, 2016.
131. Smith, R, Alkozei, A, Lane, RD, & **Killgore, WD**. Unwanted reminders: The effects of emotional memory suppression on subsequent neuro-cognitive processing. *Consciousness and Cognition*, 44, 103-113, 2016.
132. Smith, R, Alkozei, A, & **Killgore, WD**. Contributions of self-report and performance-based individual differences measures of social cognitive ability on large-scale network functioning. *Brain Imaging and Behavior* (in press).
133. Pisner, DA, Smith, R, Alkozei, A, Klimova, A, & **Killgore, WD**. Highways of the emotional intellect: White matter microstructural correlates of an ability-based measure of emotional intelligence. *Social Neuroscience* (in press).
134. Kelly, MR, **Killgore, WD**, Haynes, PL. Understanding recent insights in sleep and posttraumatic stress disorder from a research domain criteria (RDoC) framework. *Current Sleep Medicine Reports* (in press).

### ***Book Chapters/Editorials***

1. **Killgore, WD**. Cortical and limbic activation during visual perception of food. In Dube, L, Bechara, A, Dagher, A, Drewnowski, A, Lebel, J, James, P, & Yada, R. (Eds), *Obesity Prevention: The Role of Brain and Society on Individual Behavior*. Elsevier, Boston, 2010, pp. 57-71.

2. **Killgore, WD.** Asleep at the trigger: Warfighter judgment and decision-making during prolonged wakefulness. In Bartone, P. (Ed), *Applying Research Psychology to Improve Performance and Policy*. 2010, pp. 59-77.
3. **Killgore, WD.** Effects of Sleep Deprivation on Cognition. In Kerkhof, G. & Van Dongen, H. *Progress in Brain Research: Sleep and Cognition*. Elsevier, B.V. New York, 2010, pp. 105-129.
4. **Killgore, WD.** Caffeine and other alerting agents. In Thorpy, M. & Billiard, M. (Eds), *Sleepiness: Causes, Consequences, Disorders and Treatment*. Cambridge University Press, UK, 2011, pp. 430-443.
5. **Killgore WD.** Priorities and challenges for caffeine research: Energy drinks, PTSD, and withdrawal reversal. *The Experts Speak Column, J Caffeine Res*, 1, 11-12, 2011.
6. **Killgore, WD.** Odor identification ability predicts executive function deficits following sleep deprivation. In Lee-Chiong, T (Ed), *Best of Sleep Medicine 2011*. National Jewish Health, Denver CO, 2011, pp. 31-33.
7. **Killgore, WD.** Socio-emotional and neurocognitive effects of sleep loss. In Matthews, G. (Ed), *Handbook of Operator Fatigue*. Ashgate, London UK, 2012, pp. 227-243.
8. **Killgore, WD.** Sleepless nights and bulging waistlines (Editorial). *Journal of Sleep Disorders: Treatment and Care*, 1(1), doi: [10.4172/jsdtc.1000e101](https://doi.org/10.4172/jsdtc.1000e101), 2012.
9. **Killgore, WD,** & Penetar, DM. Sleep and Military Operational Effectiveness. In Kushida, CA (Ed), *The Encyclopedia of Sleep*, 2013, vol. 1, pp. 311-319. Academic Press, Waltham, MA.
10. **Killgore, WD,** Weiner, MR, & Schwab, ZJ. Sleep deprivation, personality, and psychopathic changes. In Kushida, CA (Ed), *The Encyclopedia of Sleep*, 2013, vol. 1, pp. 264-271. Academic Press, Waltham, MA.
11. Schoenberg, MR, & **Killgore, WD.** Psychologic and Psychiatric Assessment. In Kushida, CA (Ed), *The Encyclopedia of Sleep*, 2013, vol. 2, pp. 23-26. Academic Press, Waltham, MA.
12. **Killgore, WD.** Sleep loss and performance. In Moore, BA, & Barnett, JE (Eds), *Military Psychologists' Desk Reference*, 2013, pp. 241-246. Oxford University Press, New York.
13. Weber, M., & **Killgore, WD.** What are the emerging therapeutic uses of bright light therapy for neurological disorders? (Editorial). *Future Neurology*, 8, 495-497, 2013.
14. **Killgore WD** & Weber, M. Sleep deprivation and cognitive performance. In Bianchi, M (Ed), *Sleep Deprivation and Disease: Effects on the Body, Brain and Behavior*, 2014, pp. 209-229. Springer, New York.
15. **Killgore, WD.** Sleep deprivation and behavioral risk taking. In Watson, RR, *Sleep Modulation by Obesity, Diabetes, Age and Diet*, 2015, pp. 279-287. Elsevier, San Diego, CA.

16. **Killgore, WD.** Lighting the way to better sleep and health (Editorial). *Journal of Sleep Disorders: Treatment and Care*, 5:1.
17. Klimova, A, Singh, P, & **Killgore WD.** White matter abnormalities in MS: Advances in diffusion tensor imaging/tractography. In Watson, RR & Killgore, WD (Eds), *Nutrition and Lifestyle in Neurological Autoimmune Diseases* (in press).
18. Singh, P, & **Killgore WD.** Time dependent differences in gray matter volume post mild traumatic brain injury. *Neural Regeneration Research*, 11, 920-921, 2016.

### ***Published U.S. Government Technical Reports***

1. **Killgore, WD,** Estrada, A, Rouse, T, Wildzunas, RM, Balkin, TJ. Sleep and performance measures in soldiers undergoing military relevant training. USAARL Report No. 2009-13. June, 2009.
2. Kelley, AM, **Killgore, WD,** Athy, JR, Dretsch, M. Risk propensity, risk perception, and sensation seeking in U.S. Army Soldiers: A preliminary study of a risk assessment battery. USAARL Report No. 2010-02. DTIC #: ADA511524. October, 2009.

### **WORKS IN PROGRESS**

1. **Killgore, WD,** Olson, EA, Weber, M, Rauch, SL, & Nickerson, LD. Emotional intelligence is associated with synchronized resting state activity between emotion regulation and interoceptive experience networks. *NeuroImage* (submitted).
2. Smith, R, **Killgore, WD,** & Lane, RD. A reconceptualization of emotional intelligence based on neural systems. *Behavioral and Brain Sciences* (submitted).
3. Alkozei, A, & **Killgore, WD.** Gratitude and wellbeing: A review and proposed model. *Journal of Happiness Studies* (submitted).
4. **Killgore, WD.** Individual differences in rested activation of the ventral striatum predicts overeating during sleep deprivation. (in preparation).
5. **Killgore, WD,** Tkachenko, O, Rauch, SL, & Nickerson, LD. Multimodal neuroimaging at rested baseline predicts resistance to overnight sleep deprivation. (in preparation).
6. Chaumet, G, **Killgore WD,** & Rabat, A. Performance self-estimation and decision-making: an new task (GoPT) for exploring aspects of risk taking. (in preparation).
7. Pisner, DA, Smith, R, Alkozei, A, Klimova, A, & **Killgore, WD.** White matter microstructural correlates of an ability measure of emotional intelligence. (in preparation).
8. Sneider, JT, Jensen, JE, Silveri, MM, & **Killgore, WD.** Prefrontal GABA predicts resistance to

sleep deprivation. (in preparation).

9. Weber, M, **Killgore WD**, and Rauch, SL. Regionally specific alterations in network organization following psychological trauma and post-traumatic stress disorder. (in preparation).
10. Weber, M, & **Killgore, WD**. Functional brain network organization in relation to self-reported habitual sleep. (in preparation).
11. Weber, M, & **Killgore WD**. Sleep disturbance following traumatic brain injury—a critical review. (in preparation).
12. **Killgore, WD**. Neural correlates of healthy food and activity decisions. (in preparation).

## **CONFERENCES/SCHOLARLY PRESENTATIONS**

### ***Colloquia***

- |      |   |
|------|---|
| 2000 | <i>The Neurobiology of Emotion in Children</i> , McLean Hospital, Belmont, MA [ <i>Invited Lecture</i> ]  |
| 2001 | <i>The Neurobiology of Emotion in Children and Adolescents</i> , McLean Hospital, Belmont, MA [ <i>Invited Lecture</i> ]  |
| 2002 | Cortico-Limbic Activation in Adolescence and Adulthood, Youth Advocacy Project, Cape Cod, MA [ <i>Invited Lecture</i> ]   |
| 2008 | Lecture on <i>Sleep Deprivation, Executive Function, and Resilience to Sleep Loss</i> ; 105 <sup>th</sup> IMA Detachment, U.S. Army Reserve Center, Boston, MA [ <i>Invited Lecture</i> ]         |
| 2008 | Lecture on <i>The Role of Research Psychology in the Army</i> ; 105 <sup>th</sup> IMA Detachment, U.S. Army Reserve Center, Boston, MA [ <i>Invited Lecture</i> ]                                 |
| 2008 | Lecture on <i>Combat Stress Control: Basic Battlemind Training</i> ; 105 <sup>th</sup> IMA Detachment, U.S. Army Reserve Center, Boston, MA [ <i>Invited Lecture</i> ]                            |
| 2009 | Lecture entitled <i>Evaluate a Casualty, Prevent Shock, and Prevent Cold Weather injuries</i> ; 105 <sup>th</sup> IMA Detachment, U.S. Army Reserve Center, Boston, MA [ <i>Invited Lecture</i> ] |
| 2009 | Lecture on <i>Combat Exposure and Sleep Deprivation Effects on Risky Decision-Making</i> ; 105 <sup>th</sup> IMA Detachment, U.S. Army Reserve Center, Boston, MA [ <i>Invited Lecture</i> ]      |
| 2009 | Lecture on the <i>Sleep History and Readiness Predictor (SHARP)</i> ; 105 <sup>th</sup> IMA Detachment, U.S. Army Reserve Center, Boston, MA [ <i>Invited Lecture</i> ]                           |
| 2009 | Lecture on <i>The Use of Actigraphy for Measuring Sleep in Combat and Military Training</i> ; 105 <sup>th</sup> IMA Detachment, U.S. Army Reserve Center, Boston, MA [ <i>Invited Lecture</i> ]   |



- 2010      Lecture entitled *Casualty Evaluation*; 105<sup>th</sup> IMA Detachment, U.S. Army Reserve Center, Boston, MA [*Invited Lecture*]
- 2010      Lecture entitled *Combat Stress and Risk-Taking Behavior Following Deployment*; 105<sup>th</sup> IMA Detachment, U.S. Army Reserve Center, Boston, MA [*Invited Lecture*]
- 2010      Lecture entitled *Historical Perspectives on Combat Medicine at the Battle of Gettysburg*; 105<sup>th</sup> IMA Detachment, U.S. Army Reserve Center, Boston, MA [*Invited Lecture*]
- 2010      Lecture entitled *Sleep Loss, Stimulants, and Decision-Making*; 105<sup>th</sup> IMA Detachment, U.S. Army Reserve Center, Boston, MA [*Invited Lecture*]
- 2010      Lecture entitled *PTSD: New Insights from Brain Imaging*; 105<sup>th</sup> IMA Detachment, U.S. Army Reserve Center, Boston, MA [*Invited Lecture*]
- 2011      Lecture entitled *Effects of bright light therapy on sleep, cognition and brain function after mild traumatic brain injury*; 105<sup>th</sup> IMA Detachment, U.S. Army Reserve Center, Boston, MA [*Invited Lecture*]
- 2011      Lecture entitled *Laboratory Sciences and Research Psychology in the Army*; 105<sup>th</sup> IMA Detachment, U.S. Army Reserve Center, Boston, MA [*Invited Lecture*]
- 2011      Lecture entitled *Tools for Assessing Sleep in Military Settings*; 105<sup>th</sup> IMA Detachment, U.S. Army Reserve Center, Boston, MA [*Invited Lecture*]
- 2011      Lecture entitled *The Brain Basis of Emotional Trauma and Practical Issues in Supporting Victims of Trauma*, U.S. Department of Justice, United States Attorneys Office, Serving Victims of Crime Training Program, Holyoke, MA [*Invited Lecture*]
- 2011      Lecture entitled *The Brain Altering Effects of Traumatic Experiences*; 105<sup>th</sup> Reinforcement Training Unit (RTU), U.S. Army Reserve Center, Boston, MA [*Invited Lecture*]
- 2012      Lecture entitled *Sleep Loss, Caffeine, and Military Performance*; 105<sup>th</sup> IMA Detachment, U.S. Army Reserve Center, Boston, MA [*Invited Lecture*]
- 2012      Lecture entitled *Using Light Therapy to Treat Sleep Disturbance Following Concussion*; 105<sup>th</sup> IMA Detachment, U.S. Army Reserve Center, Boston, MA [*Invited Lecture*]
- 2013      Lecture entitled *Brain Responses to Food: What you See Could Make you Fat*; 105<sup>th</sup> IMA Detachment, U.S. Army Reserve Center, Boston, MA [*Invited Lecture*]
- 2013      Lecture entitled *Predicting Resilience Against Sleep Loss*; 105<sup>th</sup> IMA Detachment, U.S. Army Reserve Center, Boston, MA [*Invited Lecture*]
- 2014      Lecture entitled *Get Some Shut-Eye or Get Fat: Sleep Loss Affects Brain Responses to Food*; 105<sup>th</sup> IMA Detachment, U.S. Army Reserve Center, Boston, MA [*Invited Lecture*]

- 2014 Lecture entitled *Emotional Intelligence: Developing a Training Program*; 105<sup>th</sup> IMA Detachment, U.S. Army Reserve Center, Boston, MA [*Invited Lecture*]
- 2014 Lecture entitled *Supporting Cognitive and Emotional Health in Warfighters*. Presented to the Senior Vice President for the Senior Vice President for Health Sciences and Dean of the Medical School, University of Arizona, Tucson, AZ [*Invited Lecture*]
- 2015 Lecture entitled *Understanding the Effects of Mild TBI (Concussion) on the Brain*; 105<sup>th</sup> IMA Detachment, U.S. Army Reserve Center, Boston, MA [*Invited Lecture*]
- 2015 Presentation entitled *Superhuman Brains: The Neurocircuitry that Underlies the Ability to Resist Sleep Deprivation*. Presented at the Neuroscience Datablitz, University of Arizona, Tucson, AZ [*Invited Lecture*]
- 2015 Presentation entitled: *SCAN Lab Traumatic Stress Study*. Presented at the Tucson Veteran Center, Tucson AZ [*Invited Lecture*]
- 2016 Presentation entitled: *SCAN Lab Overview*. Presented at the University of Arizona 2016 Sleep workshop, Tucson, AZ [*Invited Lecture*]
- 2016 Lecture entitled *Trauma Exposure and the Brain*; 105<sup>th</sup> IMA Detachment, U.S. Army Reserve Center, Boston, MA [*Invited Lecture*]
- 2016 Presentation entitled *Supporting Cognitive and Emotional Health in Warfighters*. UAHS Development Team, University of Arizona Health Sciences Center, Tucson, AZ [*Invited Lecture*]
- 2016 Lecture entitled *Novel Approaches for Reducing Depression in the Military*; 105<sup>th</sup> IMA Detachment, U.S. Army Reserve Center, Boston, MA [*Invited Lecture*]

### ***Seminars***

- 2001 *Using Functional MRI to Study the Developing Brain*, Judge Baker Children's Center, Harvard Medical School, Boston, MA [*Invited Lecture*]
- 2002 Lecture on the *Changes in the Lateralized Structure and Function of the Brain during Adolescent Development*, Walter Reed Army Institute of Research, Washington, DC [*Invited Lecture*]
- 2005 Lecture on *Functional Neuroimaging, Cognitive Assessment, and the Enhancement of Soldier Performance*, Walter Reed Army Institute of Research, Washington, DC [*Invited Lecture*]
- 2005 Lecture on *The Sleep History and Readiness Predictor*: Presented to the Medical Research and Materiel Command, Ft. Detrick, MD [*Invited Lecture*]

- 2006 Lecture on *Optimization of Judgment and Decision Making Capacities in Soldiers Following Sleep Deprivation*, Brain Imaging Center, McLean Hospital, Belmont MA [Invited Lecture]
- 2006 Briefing to the Chairman of the Cognitive Performance Assessment Program Area Steering Committee, U.S. Army Military Operational Medicine Research Program, entitled *Optimization of Judgment and Decision Making Capacities in Soldiers Following Sleep Deprivation*, Walter Reed Army Institute of Research [Invited Lecture]
- 2010 Lecture on *Patterns of Cortico-Limbic Activation Across Anxiety Disorders*, Center for Anxiety, Depression, and Stress, McLean Hospital, Belmont, MA [Invited Lecture]
- 2010 Lecture on *Cortico-Limbic Activation Among Anxiety Disorders*, Neuroimaging Center, McLean Hospital, Belmont, MA [Invited Lecture]
- 2011 Lecture on *Shared and Differential Patterns of Cortico-Limbic Activation Across Anxiety Disorders*, McLean Research Day Brief Communications, McLean Hospital, Belmont, MA [Invited Lecture]
- 2014 Lecture entitled *Supporting Cognitive and Emotional Health in Warfighters*. Presented to the Senior Vice President for Health Sciences and Dean of the Medical School, University of Arizona, Tucson, AZ [Invited Lecture]
- 2015 Lecture entitled *Sleep Loss and Brain Responses to Food*. Presented for the Sleep Medicine Lecture Series, University of Arizona Medical Center, Tucson, AZ [Invited Lecture]
- 2015 Presentation entitled *Superhuman Brains: The Neurocircuitry that Underlies the Ability to Resist Sleep Deprivation*. Presented at the Neuroscience Datablitz, University of Arizona, Tucson, AZ [Invited Lecture]
- 2015 Lecture entitled *Sleep Deprivation Selectively Impairs Emotional Aspects of Cognition*. Presented at the Pamela Turbeville Speaker Series, McClelland Institute for Children, Youth, and Families, Tucson, AZ, [Invited Lecture]
- 2005 Briefing to the Chairman of the National Research Council (NRC) Committee on Strategies to Protect the Health of Deployed U.S. Forces, John H. Moxley III, on the *Optimization of Judgment and Decision Making Capacities in Soldiers Following Sleep Deprivation*, Walter Reed Army Institute of Research, Washington, DC [Invited Lecture]
- 2006 Lecture on *Norming a Battery of Tasks to Measure the Cognitive Effects of Operationally Relevant Stressors*, Cognitive Performance Assessment Program Area Steering Committee, U.S. Army Military Operational Medicine Research Program, Washington, DC [Invited Lecture]
- 2007 Lecture on *Cerebral Responses During Visual Processing of Food*, U.S. Army Institute of Environmental Medicine, Natick, MA [Invited Lecture]

- 2007      Briefing on the *Measurement of Sleep-Wake Cycles and Cognitive Performance in Combat Aviators*, U.S. Department of Defense, Defense Advanced Research Projects Agency (DARPA), Washington, DC [*Invited Lecture*]
- 2007      Lecture on *The Effects of Fatigue and Pharmacological Countermeasures on Judgment and Decision-Making*, U.S. Army Aeromedical Research Laboratory, Fort Rucker, AL [*Invited Lecture*]
- 2008      Lecture on the *Validation of Actigraphy and the SHARP as Methods of Measuring Sleep and Performance in Soldiers*, U.S. Army Aeromedical Research Laboratory, Fort Rucker, AL [*Seminar*]
- 2009      Lecture on Sleep Deprivation, *Executive Function, and Resilience to Sleep Loss*: Walter Reed Army Institute of Research AIBS Review, Washington DC [*Invited Lecture*]
- 2009      Lecture Entitled *Influences of Combat Exposure and Sleep Deprivation on Risky Decision-Making*, Evans U.S. Army Hospital, Fort Carson, CO [*Invited Lecture*]
- 2009      Lecture on *Making Bad Choices: The Effects of Combat Exposure and Sleep Deprivation on Risky Decision-Making*, 4<sup>th</sup> Army, Division West, Quarterly Safety Briefing to the Commanding General and Staff, Fort Carson, CO [*Invited Lecture*]
- 2011      Lecture Entitled *The effects of emotional intelligence on judgment and decision making*, *Military Operational Medicine Research Program Task Area C*, R & A Briefing, Walter Reed Army Institute of Research, Silver Spring, MD [*Invited Lecture*]
- 2011      Lecture Entitled *Effects of bright light therapy on sleep, cognition, brain function, and neurochemistry following mild traumatic brain injury*, *Military Operational Medicine Research Program Task Area C*, R & A Briefing, Walter Reed Army Institute of Research, Silver Spring, MD [*Invited Lecture*]
- 2012      Briefing to GEN (Ret) George Casey Jr., former Chief of Staff of the U.S. Army, entitled *Research for the Soldier*. McLean Hospital, Belmont, MA. [*Invited Lecture*]
- 2012      Lecture Entitled *Effects of bright light therapy on sleep, cognition, brain function, and neurochemistry following mild traumatic brain injury*, *Military Operational Medicine Research Program In Progress Review (IPR) Briefing*, U.S. Army Medical Research and Materiel Command, Fort Detrick, MD [*Invited Lecture*]
- 2013      Lecture Entitled *Update on the Effects of Bright light therapy on sleep, cognition, brain function, and neurochemistry following mild traumatic brain injury*, *Military Operational Medicine Research Program In Progress Review (IPR) Briefing*, U.S. Army Medical Research and Materiel Command, Fort Detrick, MD [*Invited Lecture*]
- 2013      Lecture Entitled *Internet Based Cognitive Behavioral Therapy: Effects on Depressive Cognitions and Brain Function*, *Military Operational Medicine Research Program In Progress Review (IPR) Briefing*, U.S. Army Medical Research and Materiel Command,

Fort Detrick, MD [*Invited Lecture*]

- 2013 Seminar Entitled *Predicting Resilience Against Sleep Loss*, United States Military Academy at West Point, West Point, NY [*Invited Symposium*].
- 2014 Lecture entitled *Sleep Loss, Brain Function, and Cognitive Performance*, presented to the Psychiatric Genetics and Translational Research Seminar, Massachusetts General Hospital/Harvard Medical School, Boston, MA [*Invited Lecture*]
- 2014 Grand Rounds Lecture entitled *Sleep Loss, Brain Function, and Performance of the Emotional-Executive System*. University of Arizona Psychiatry Grand Rounds, Tucson, AZ [*Invited Lecture*]
- 2014 Psychology Department Colloquium entitled *Sleep Loss, Brain Function, and Performance of the Emotional-Executive System*. University of Arizona Department of Psychology, Tucson, AZ [*Invited Lecture*]
- 2014 Lecture Entitled *Internet Based Cognitive Behavioral Therapy: Effects on Depressive Cognitions and Brain Function*, Military Operational Medicine Research Program In Progress Review (IPR) Briefing, U.S. Army Medical Research and Materiel Command, Fort Detrick, MD [*Invited Lecture*]
- 2014 Lecture Entitled *The Neurobiological Basis and Potential Modification of Emotional Intelligence Through Affective/Behavioral Training*, Military Operational Medicine Research Program In Progress Review (IPR) Briefing, U.S. Army Medical Research and Materiel Command, Fort Detrick, MD [*Invited Lecture*]
- 2015 Lecture Entitled *Multimodal Neuroimaging to Predict Resistance to Sleep Deprivation*, presented at the Pulmonary Research Conference, Department of Medicine, Sleep Medicine Sleep Lecture Series, University of Arizona College of Medicine, Tucson, AZ [*Invited Lecture*].
- 2015 Lecture entitled *Sleep Deprivation Selectively Impairs Emotional Aspects of Cognition*. Presented at the Pamela Turbeville Speaker Series, McClelland Institute for Children, Youth, and Families, Tucson, AZ, [*Invited Lecture*]
- 2015 Lecture Entitled *Effects of bright light therapy on sleep, cognition, brain function, and neurochemistry following mild traumatic brain injury*, Military Operational Medicine Research Program In Progress Review (IPR) Briefing, U.S. Army Medical Research and Materiel Command, Fort Detrick, MD [*Invited Lecture*]
- 2015 Lecture Entitled *A Non-Pharmacologic Method for Enhancing Sleep in PTSD*, Military Operational Medicine Research Program In Progress Review (IPR) Briefing, U.S. Army Medical Research and Materiel Command, Fort Detrick, MD [*Invited Lecture*]
- 2015 Lecture Entitled *Internet Based Cognitive Behavioral Therapy: Effects on Depressive Cognitions and Brain Function*, Military Operational Medicine

Research Program In Progress Review (IPR) Briefing, U.S. Army Medical Research and Materiel Command, Fort Detrick, MD [*Invited Lecture*]

- 2015      Lecture Entitled *Operating Under the Influence: The Effects of Sleep Loss and Stimulants on Decision-Making and Performance*. Presented at the annual SAFER training for interns and residents, University of Arizona Department of Psychiatry, Tucson AZ [*Invited Lecture*]
- 2016      Lecture entitled *Translational Neuroimaging: Using MRI Techniques to Promote Recovery and Resilience*. Functional Neuroimaging Course, Spring 2016, Psychology Department, University of Arizona, Tucson, AZ [*Invited Lecture*]
- 2016      Lecture entitled *Supporting Cognitive and Emotional Health in Warfighters*. Presented at the Department of Behavioral Biology, Walter Reed Army Institute of Research, Silver Spring, MD [*Invited Lecture*]
- 2016      Lecture Entitled *Internet Based Cognitive Behavioral Therapy: Effects on Depressive Cognitions and Brain Function*, Military Operational Medicine Research Program In Progress Review (IPR) Briefing, U.S. Army Medical Research and Materiel Command, Fort Detrick, MD [*Invited Lecture*]
- 2016      Lecture Entitled *A Model for Predicting Cognitive and Emotional Health from Structural and Functional Neurocircuitry following TBI*, Military Operational Medicine Research Program In Progress Review (IPR) Briefing, U.S. Army Medical Research and Materiel Command, Fort Detrick, MD [*Invited Lecture*]
- 2016      Lecture Entitled *Refinement and Validation of a Military Emotional Intelligence Training Program*, Military Operational Medicine Research Program In Progress Review (IPR) Briefing, U.S. Army Medical Research and Materiel Command, Fort Detrick, MD [*Invited Lecture*]

### ***Symposia/Conferences***

- 1999      Oral Platform Presentation entitled *Functional MRI lateralization during memory encoding predicts seizure outcome following anterior temporal lobectomy*, 27<sup>th</sup> Annual Meeting of the International Neuropsychological Society, Boston, MA. [*Submitted Presentation*]
- 2000      Lecture on the *Neurobiology of Emotional Development in Children*, 9th Annual Parents as Teachers Born to Learn Conference, St. Louis, MO [*Invited Lecture*]
- 2001      Oral Platform Presentation entitled *Sex differences in functional activation of the amygdala during the perception of happy faces*, 29<sup>th</sup> Annual Meeting of the International Neuropsychological Society, Chicago, IL. [*Submitted Presentation*]
- 2002      Oral Platform Presentation entitled *Developmental changes in the lateralized activation of the prefrontal cortex and amygdala during the processing of facial affect*, 30<sup>th</sup> Annual Meeting of the International Neuropsychological Society, Toronto, Ontario, Canada.

*[Submitted Presentation]*

- 2002 Oral Platform Presentation *Gray and white matter volume during adolescence correlates with cognitive performance: A morphometric MRI study*, 30<sup>th</sup> Annual Meeting of the International Neuropsychological Society, Toronto, Ontario, Canada. *[Submitted Presentation]*
- 2004 Lecture on *Sleep Deprivation, Cognition, and Stimulant Countermeasures*: Seminar Presented at the Bi-Annual 71F Research Psychology Short Course, Ft. Detrick, MD, U.S. Army Medical Research and Materiel Command *[Invited Lecture]*
- 2004 Lecture on the *Regional Cerebral Blood Flow Correlates of Electroencephalographic Activity During Stage 2 and Slow Wave Sleep: An H215O PET Study*: Presented at the Bi-Annual 71F Research Psychology Short Course, Ft. Detrick, MD, U.S. Army Medical Research and Materiel Command *[Invited Lecture]*
- 2004 Oral Platform Presentation entitled *Regional cerebral metabolic correlates of electroencephalographic activity during stage-2 and slow-wave sleep: An H215O PET Study*, 18th Associated Professional Sleep Societies Annual Meeting, Philadelphia, PA. *[Submitted Presentation]*
- 2006 Lecture on *The Sleep History and Readiness Predictor*: Presented at the Bi-Annual 71F Research Psychology Short Course, Ft. Rucker, AL, U.S. Army Medical Research and Materiel Command *[Invited Lecture]*
- 2007 Symposium on *Cortical and Limbic Activation in Response to Visual Images of Low and High-Caloric Foods*, 6th Annual Meeting of the International Society for Behavioral Nutrition and Physical Activity (ISBNPA), Oslo, Norway *[Invited Lecture]*
- 2008 Lecture on *Sleep Deprivation, Executive Function, & Resilience to Sleep Loss*, First Franco-American Workshop on War Traumatism, IMN SSA, Toulon, France *[Invited Lecture]*
- 2009 Symposium Entitled *Sleep Deprivation, Judgment, and Decision-Making*, 23<sup>rd</sup> Annual Meeting of the Associated Professional Sleep Societies, Seattle, WA *[Invited Symposium]*
- 2009 Symposium Session Moderator for *Workshop on Components of Cognition and Fatigue: From Laboratory Experiments to Mathematical Modeling and Operational Applications*, Washington State University, Spokane, WA *[Invited Speaker]*
- 2009 Lecture on *Comparative Studies of Stimulant Action as Countermeasures for Higher Order Cognition and Executive Function Impairment that Results from Disrupted Sleep Patterns*, Presented at the NIDA-ODS Symposium entitled: Caffeine: Is the Next Problem Already Brewing, Rockville, MD *[Invited Lecture]*
- 2010 Oral Platform Presentation entitled *Sleep deprivation selectively impairs emotional aspects of cognitive functioning*, 27<sup>th</sup> Army Science Conference, Orlando, FL. *[Submitted Presentation]*

- 2010 Oral Platform Presentation entitled *Exaggerated amygdala responses to masked fearful faces are specific to PTSD versus simple phobia*, 27<sup>th</sup> Army Science Conference, Orlando, FL. [Submitted Presentation]
- 2012 Oral Symposium Presentation entitled *Shared and distinctive patterns of cortico-limbic activation across anxiety disorders*, 32<sup>nd</sup> Annual Conference of the Anxiety Disorders Association of America, Arlington, VA. [Invited Symposium]
- 2012 Oral Platform Presentation entitled *Shared and unique patterns of cortico-limbic activation across anxiety disorders*. 40<sup>th</sup> Meeting of the International Neuropsychological Society, Montreal, Canada. [Submitted Presentation]
- 2013 Lecture entitled *Brain responses to visual images of food: Could your eyes be the gateway to excess?* Presented to the NIH Nutrition Coordinating Committee and the Assistant Surgeon General of the United States, Bethesda, MD [Invited Lecture]
- 2014 Symposium Entitled *Operating Under the Influence: The Effects of Sleep Loss and Stimulants on Decision-Making and Performance*, Invited Faculty Presenter at the 34<sup>th</sup> Annual Cardiothoracic Surgery Symposium (CREF), San Diego, CA [Invited Symposium].
- 2014 Symposium Entitled *The Effects of Sleep Loss on Food Preference*, SLEEP 2014, Minneapolis, MN [Invited Symposium]
- 2015 Symposium Entitled *The Neurobiological Basis and Potential Modification of Emotional Intelligence in Military Personnel*. Invited presentation at the Yale Center for Emotional Intelligence, New Haven, CT [Invited Lecture]
- 2015 Lecture Entitled *Predicting Resilience to Sleep Loss with Multi-Modal Neuroimaging*. Invited presentation at the DARPA Sleep Workshop 2015, Arlington, VA [Invited Lecture]
- 2015 Symposium Entitled: *The Brain and Food: How your (sleepy) Eyes Might be the Gateway to Excess*, Invited Faculty Presenter at the 2015 University of Arizona Update on Psychiatry, Tucson, AZ [Invited Symposium].
- 2015 Oral Platform presentation entitled *Multimodal Neuroimaging to Predict Resistance to Sleep Deprivation*, Associated Professional Sleep Societies (APSS) SLEEP meeting, Seattle, WA [Submitted Presentation]
- 2015 Symposium Entitled presentation entitled *Sleep Deprivation and Emotional Decision Making*, Virginia Tech Sleep Workshop, Arlington, VA [Invited Symposium]
- 2016 Oral Platform presentation entitled *Default Mode Activation Predicts Vulnerability to Sleep Deprivation in the Domains of Mood, Sleepiness, and Vigilance*, Associated Professional Sleep Societies (APSS) SLEEP meeting, Denver, CO [Submitted Presentation]



- 2016 Oral Platform presentation entitled *Short Wavelength Light Therapy Facilitates Recovery from Mild Traumatic Brain Injury*, Military Health Systems Research Symposium (MHSRS), Orlando, FL [*Submitted Presentation*]

***Peer Reviewed Published Abstracts***

1. **Killgore, WD.** Development and validation of a new instrument for the measurement of transient mood states: The facial analogue mood scale (FAMS) [Abstract]. Dissertation Abstracts International: Section B: The Sciences & Engineering 1995; 56 (6-B): 3500.
2. **Killgore, WD, & Locke, B.** A nonverbal instrument for the measurement of transient mood states: The Facial Analogue Mood Scale (FAMS) [Abstract]. Proceedings of the Annual Conference of the Oklahoma Center for Neurosciences 1996, Oklahoma City, OK.
3. **Killgore, WD, Scott, JG, Oommen, KJ, & Jones, H.** Lateralization of seizure focus and performance on the MMPI-2 [Abstract]. Proceedings of the Annual Conference of the Oklahoma Center for Neurosciences 1996, Oklahoma City, OK.
4. **Killgore, WD, & Adams, RL.** Vocabulary ability and Boston Naming Test performance: Preliminary guidelines for interpretation [Abstract]. Archives of Clinical Neuropsychology 1997; 13(1).
5. **Killgore, WD, Glosser, G, Cooke, AN, Grossman, M, Maldjian, J, Judy, K, Baltuch, G, King, D, Alsop, D, & Detre, JA.** Functional activation during verbal memory encoding in patients with lateralized focal lesions [Abstract]. Epilepsia 1998; 39(Suppl. 6): 99.
6. **Killgore, WD.** A new method for assessing subtle cognitive deficits: The Clock Trail Making Test [Abstract]. Archives of Clinical Neuropsychology 1998; 14(1): 92.
7. **Killgore, WD, & DellaPietra, L.** Item response biases on the WMS-III Auditory Delayed Recognition Subtests [Abstract]. Archives of Clinical Neuropsychology 1998; 14(1): 92.
8. **Killgore, WD, Glosser, G, Alsop, DC, Cooke, AN, McSorley, C, Grossman, M, & Detre, JA.** Functional activation during material specific memory encoding [Abstract]. NeuroImage 1998; 7: 811.
9. **Killgore, WD, & DellaPietra, L.** Using the WMS-III to detect malingering: Empirical development of the Rarely Missed Index. [Abstract]. Journal of the International Neuropsychological Society 1999; 5(2).
10. **Killgore, WD, Glosser, G, & Detre, JA.** Prediction of seizure outcome following anterior temporal lobectomy: fMRI vs. IAT [Abstract]. Archives of Clinical Neuropsychology 1999; 14(1): 143.
11. **Killgore, WD, Glosser, G, King, D, French, JA, Baltuch, G, & Detre, JA.** Functional MRI

lateralization during memory encoding predicts seizure outcome following anterior temporal lobectomy [Abstract]. Journal of the International Neuropsychological Society 1999; 5(2): 122.

12. **Killgore, WD**, Casasanto, DJ, Maldjian, JA, Alsop, DC, Glosser, G, French, J, & Detre, J. A. Functional activation of mesial temporal lobe during nonverbal encoding [abstract]. Epilepsia, 1999; 40 (Supplement 7): 188.
13. **Killgore, WD**, Casasanto, DJ, Maldjian, JA, Gonzales-Atavales, J, & Detre, JA. Associative memory for faces preferentially activates the left amygdala and hippocampus [abstract]. Journal of the International Neuropsychological Society, 2000; 6: 157.
14. Casasanto, DJ, **Killgore, WD**, Maldjian, JA, Gonzales-Atavales, J, Glosser, G, & Detre, JA. Task-dependent and task-invariant activation in mesial temporal lobe structures during fMRI explicit encoding tasks [abstract]. Journal of the International Neuropsychological Society, 2000; 6: 134. [*Winner of Rennick Research Award*].
15. **Killgore, WD**, Glahn, D, & Casasanto, DJ. Development and validation of the Design Organization Test (DOT): A rapid screening instrument for assessing for visuospatial ability [abstract]. Journal of the International Neuropsychological Society, 2000; 6: 147.
16. Casasanto DJ, **Killgore, WD**, Glosser, G, Maldjian, JA, & Detre, JA. Hemispheric specialization during episodic memory encoding in the human hippocampus and MTL. Proceedings of the Society for Cognitive Science 2000: Philadelphia, PA.
17. Casasanto, DJ, Glosser, G, **Killgore, WD**, Siddiqi, F, Falk, M, Maldjian, J, Lev-Reis, I, & Detre, JA. FMRI evidence for the functional reserve model of post-ATL neuropsychological outcome prediction. Poster Presented at the David Mahoney Institute of Neurological Sciences 17th Annual Neuroscience Retreat, University of Pennsylvania, April 17, 2000.
18. Casasanto, DJ, **Killgore, WD**, Maldjian, JA, Glosser, G, Grossman, M, Alsop, D. C, & Detre, JA. Neural Correlates of Successful and Unsuccessful Verbal Encoding [abstract]. Neuroimage, 2000 11: S381.
19. Siddiqui, F, Casasanto, DJ, **Killgore, WD**, Detre, JA, Glosser, G, Alsop, DC, & Maldjian, JA. Hemispheric effects of frontal lobe tumors on mesial temporal lobe activation during scene encoding [abstract]. Neuroimage, 2000 11: S448.
20. Oki, M, Gruber, SA, **Killgore, WD**, Yurgelun-Todd, DA. Bilateral thalamic activation occurs during lexical but not semantic processing [abstract]. Neuroimage, 2000 11: S353.
21. Yurgelun-Todd, DA, Gruber, SA, **Killgore, WD**, & Tohen, M. Neuropsychological performance in first-episode bipolar disorder [Abstract]. Collegium Internationale Neuro-Psychopharmacologicum. Brussels, Belgium. July, 2000.
22. **Killgore, WD**, & DellaPietra, L. Detecting malingering with the WMS-III: A revision of the Rarely Missed Index (RMI) [abstract]. Journal of the International Neuropsychological Society, 2001; 7 (2): 143-144.

23. Casasanto, DJ, Glosser, G, **Killgore, WD**, Siddiqi, F, Falk, M, Roc, A, Maldjian, JA, Levy-Reis, I, Baltuch, G, & Detre, JA. Presurgical fMRI predicts memory outcome following anterior temporal lobectomy [abstract]. *Journal of the International Neuropsychological Society*, 2001; 7 (2): 183.
24. **Killgore, WD**, & Yurgelun-Todd, DA. Amygdala but not hippocampal size predicts verbal memory performance in bipolar disorder [abstract]. *Journal of the International Neuropsychological Society*, 2001; 7 (2): 250-251.
25. **Killgore, WD**, Kanayama, G, & Yurgelun-Todd, DA. Sex differences in functional activation of the amygdala during the perception of happy faces [abstract]. *Journal of the International Neuropsychological Society*, 2001; 7 (2): 198.
26. **Killgore, WD**, Gruber, SA, Oki, M, & Yurgelun-Todd, DA. Amygdalar volume and verbal memory in schizophrenia and bipolar disorder: A correlative MRI study [abstract]. Meeting of the International Congress on Schizophrenia Research. Whistler, British Columbia. April 2001.
27. Kanayama, G, **Killgore, WD**, Gruber, SA, & Yurgelun-Todd, DA. FMRI BOLD activation of the supramarginal gyrus in schizophrenia [abstract]. Meeting of the International Congress on Schizophrenia Research. Whistler, British Columbia. April 2001.
28. Gruber, SA, **Killgore, WD**, Renshaw, PF, Pope, HG. Jr, Yurgelun-Todd, DA. Gender differences in cerebral blood volume after a 28-day washout period in chronic marijuana smokers [abstract]. Meeting of the International Congress on Schizophrenia Research. Whistler, British Columbia. April 2001.
29. Rohan, ML, **Killgore, WD**, Eskesen, JG, Renshaw, PF, & Yurgelun-Todd, DA. Match-warped EPI anatomic images and the amygdala: Imaging in hard places. *Proceedings of the International Society for Magnetic Resonance in Medicine*, 2001; 9: 1237.
30. **Killgore, WD** & Yurgelun-Todd, DA. Developmental changes in the lateralized activation of the prefrontal cortex and amygdala during the processing of facial affect [Abstract]. Oral platform paper presented at the 30th Annual Meeting of the International Neuropsychological Society, Toronto, Ontario, Canada, February 13-16, 2002.
31. Yurgelun-Todd, DA. & **Killgore, WD**. Gray and white matter volume during adolescence correlates with cognitive performance: A morphometric MRI study [Abstract]. Oral platform paper presented at the 30th Annual Meeting of the International Neuropsychological Society, Toronto, Ontario, Canada, February 13-16, 2002.
32. **Killgore, WD**, Reichardt, R. Kautz, M, Belenky, G, Balkin, T, & Wesensten, N. Daytime melatonin-zolpidem cocktail: III. Effects on salivary melatonin and performance [abstract]. Poster presented at the 17th Annual Meeting of the Associated Professional Sleep Societies, Chicago, Illinois, June 3-8, 2003.
33. **Killgore, WD**, Young, AD, Femia, LA, Bogorodzki, P, Rogowska, J, & Yurgelun-Todd, DA.

Cortical and limbic activation during viewing of high- versus low-calorie foods [abstract]. Poster Presented at the Organization for Human Brain Mapping Annual Meeting, New York, NY, June 18-22, 2003.

34. **Killgore, WD,** & Yurgelun-Todd, DA. Amygdala activation during masked presentations of sad and happy faces [abstract]. Poster presented at the Organization for Human Brain Mapping Annual Meeting, New York, NY, June 18-22, 2003.
35. **Killgore, WD,** Stetz, MC, Castro, CA, & Hoge, CW. Somatic and emotional stress symptom expression prior to deployment by soldiers with and without previous combat experience [abstract]. Poster presented at the 6th Annual Force Health Protection Conference, Albuquerque, NM, August, 11-17, 2003. [*\*Best Paper Award*]
36. Wesensten, NJ, Balkin, TJ, Thorne, D, **Killgore, WD,** Reichardt, R, & Belenky, G. Caffeine, dextroamphetamine, and modafinil during 85 hours of sleep deprivation: I. Performance and alertness effects [abstract]. Poster presented at the 75th Annual Meeting of the Aerospace Medical Association, Anchorage, AK, May 2-6 2004.
37. **Killgore, WD,** Braun, AR, Belenky, G, Wesensten, NJ, & Balkin, TJ. Regional cerebral metabolic correlates of electroencephalographic activity during stage-2 and slow-wave sleep: An H215O PET Study [abstract]. Oral platform presentation at the 18th Associated Professional Sleep Societies Annual Meeting, Philadelphia, PA, June 5-10, 2004.
38. **Killgore, WD,** Arora, NS, Braun, AR, Belenky, G, Wesensten, NJ, & Balkin, TJ. Sleep strengthens the effective connectivity among cortical and subcortical regions: Evidence for the restorative effects of sleep using H215O PET [abstract]. Poster presented at the 17th Congress of the European Sleep Research Society, Prague, Czech Republic, October 5-9, 2004.
39. **Killgore, WD,** Arora, NS, Braun, AR, Belenky, G, Wesensten, NJ, & Balkin, TJ. An H215O PET study of regional cerebral activation during stage 2 sleep [abstract]. Poster presented at the 17th Congress of the European Sleep Research Society, Prague, Czech Republic, October 5-9, 2004.
40. Wesensten, N, **Killgore, WD,** Belenky, G, Reichardt, R, Thorne, D, & Balkin, T. Caffeine, dextroamphetamine, and modafinil during 85 H of sleep deprivation. II. Effects of tasks of executive function [abstract]. Poster presented at the 17th Congress of the European Sleep Research Society, Prague, Czech Republic, October 5-9, 2004.
41. Balkin, T, Reichardt, R, Thorne, D, **Killgore, WD,** Belenky, G, & Wesensten, N. Caffeine, dextroamphetamine, and modafinil during 85 hours of sleep deprivation. I. Psychomotor vigilance and objective alertness effects [abstract]. Oral paper presentation at the 17th Congress of the European Sleep Research Society, Prague, Czech Republic, October 5-9, 2004.
42. Belenky, G, Reichardt, R, Thorne, D, **Killgore, WD,** Balkin, T, & Wesensten, N. Caffeine, dextroamphetamine, and modafinil during 85 hours of sleep deprivation. III. Effect on recovery sleep and post-recovery sleep performance [abstract]. Oral paper presentation at the 17th Congress of the European Sleep Research Society, Prague, Czech Republic, October 5-9,

2004.

43. Vo, A, Green, J, Campbell, W, **Killgore, WD**, Labutta, R, & Redmond, D. The quantification of disrupted sleep in migraine via actigraphy: A pilot study [abstract]. Abstract presented at the Associated Professional Sleep Societies 19th Annual Meeting, Denver, CO, June 18-23, 2005. SLEEP, 28 (Supplement), A281.
44. Kendall, AP, **Killgore, WD**, Kautz, M, & Russo, MB. Left-visual field deficits in attentional processing after 40 hours of sleep deprivation [abstract]. Abstract presented at the Associated Professional Sleep Societies 19th Annual Meeting, Denver, CO, June 18-23, 2005. SLEEP, 28 (Supplement), A143.
45. Reichardt, RM, Grugle, NL, Balkin, TJ, & **Killgore, WD**. Stimulant countermeasures, risk propensity, and IQ across 2 nights of sleep deprivation [abstract]. Abstract presented at the Associated Professional Sleep Societies 19th Annual Meeting, Denver, CO, June 18-23, 2005. SLEEP, 28 (Supplement), A145.
46. Killgore, DB, McBride, SA, Balkin, TJ, & **Killgore, WD**. Post-stimulant hangover: The effects of caffeine, modafinil, and dextroamphetamine on sustained verbal fluency following sleep deprivation and recovery sleep [abstract]. Abstract presented at the Associated Professional Sleep Societies 19th Annual Meeting, Denver, CO, June 18-23, 2005. SLEEP, 28 (Supplement), A137.
47. **Killgore, WD**, Balkin, TJ, & Wesensten, NJ. Impaired decision-making following 49 hours of sleep deprivation [abstract]. Abstract presented at the Associated Professional Sleep Societies 19th Annual Meeting, Denver, CO, June 18-23, 2005. SLEEP, 28 (Supplement), A138.
48. **Killgore, WD**, McBride, SA, Killgore, DB, & Balkin, TJ. Stimulant countermeasures and risk propensity across 2 nights of sleep deprivation [abstract]. Abstract presented at the Associated Professional Sleep Societies 19th Annual Meeting, Denver, CO, June 18-23, 2005. SLEEP, 28 (Supplement), A136.
49. McBride, SA, Balkin, TJ, & **Killgore, WD**. The effects of 24 hours of sleep deprivation on odor identification accuracy [abstract]. Abstract presented at the Associated Professional Sleep Societies 19th Annual Meeting, Denver, CO, June 18-23, 2005. SLEEP, 28 (Supplement), A137.
50. Picchioni, D, **Killgore, WD**, Braun, AR, & Balkin, TJ. PET correlates of EEG activity during non-REM sleep. Poster presentation at the annual UCLA/Websciences Sleep Training Workshop, Lake Arrowhead, CA, September, 2005.
51. **Killgore, WD**, Killgore, DB, McBride, SA, & Balkin, TJ. Sustained verbal fluency following sleep deprivation and recovery sleep: The effects of caffeine, modafinil, and dextroamphetamine. Poster presented at the 34th Meeting of the International Neuropsychological Society, Boston, MA, February 1-4, 2006.
52. **Killgore, WD**, Balkin, TJ, & Wesensten, NJ. Decision-making is impaired following 2-days of sleep deprivation. Poster presented at the 34th Meeting of the International

Neuropsychological Society, Boston, MA, February 1-4, 2006.

53. **Killgore, WD,** & Yurgelun-Todd, DA. Neural correlates of emotional intelligence in adolescent children. Poster presented at the 34th Meeting of the International Neuropsychological Society, Boston, MA, February 1-4, 2006.
54. **Killgore, WD,** & Yurgelun-Todd, DA. Social anxiety predicts amygdala activation in adolescents viewing fearful faces. Poster presented at the 34th Meeting of the International Neuropsychological Society, Boston, MA, February 1-4, 2006.
55. McBride, SA & **Killgore, WD.** Sleepy people smell worse: Olfactory deficits following extended wakefulness. Paper presented at the Workshop on Trace Gas Detection Using Artificial, Biological, and Computational Olfaction. Monell Chemical Senses Center, Philadelphia, PA, March 29-31, 2006.
56. **Killgore, WD,** Day LM, Li, C, Kamimori, GH, Balkin, TJ, & Killgore DB. Moral reasoning is affected by sleep deprivation [abstract]. Abstract presented at the 20th Meeting of the Associated Professional Sleep Societies, Salt Lake City, UT, June 17-22, 2006. SLEEP, 29 (Supplement), A137.
57. **Killgore, WD,** Killgore DB, Kahn-Green, E, Conrad, A, Balkin, TJ, & Kamimori, G. H. Introversion-Extroversion predicts resilience to sleep loss [abstract]. Abstract presented at the 20th Meeting of the Associated Professional Sleep Societies, Salt Lake City, UT, June 17-22, 2006. SLEEP, 29 (Supplement), A137.
58. Newman, R, Kamimori, GH, **Killgore, WD.** Sleep deprivation diminishes constructive thinking [abstract]. Abstract presented at the 20th Meeting of the Associated Professional Sleep Societies, Salt Lake City, UT, June 17-22, 2006. SLEEP, 29 (Supplement), A136-137.
59. Huck, NO, Kendall, AP, McBride, SA, **Killgore, WD.** The perception of facial emotion is enhanced by psychostimulants following two nights of sleep deprivation [abstract]. Abstract presented at the 20th Meeting of the Associated Professional Sleep Societies, Salt Lake City, UT, June 17-22, 2006. SLEEP, 29 (Supplement), A136.
60. O'Sullivan, M, Reichardt, RM, Krugler, AL, Killgore, DB, & **Killgore, WD.** Premorbid intelligence correlates with duration and quality of recovery sleep following sleep deprivation [abstract]. Abstract presented at the 20th Meeting of the Associated Professional Sleep Societies, Salt Lake City, UT, June 17-22, 2006. SLEEP, 29 (Supplement), A372.
61. McBride, SA, **Killgore, WD,** Kahn-Green, E, Conrad, A, & Kamimori, GH. Caffeine administered to maintain overnight alertness does not disrupt performance during the daytime withdrawal period [abstract]. Abstract presented at the 20th Meeting of the Associated Professional Sleep Societies, Salt Lake City, UT, June 17-22, 2006. SLEEP, 29 (Supplement), A136.
62. McBride, SA, Killgore DB, Balkin, TJ, Kamimori, GH, & **Killgore, WD.** Sleepy people smell worse: Olfactory decrements as a function of sleep deprivation [abstract]. Abstract presented at the 20th Meeting of the Associated Professional Sleep Societies, Salt Lake City, UT, June

17-22, 2006. SLEEP, 29 (Supplement), A135.

63. Day, LM, Li, C, Killgore, DB, Kamimori, GH, & **Killgore, WD**. Emotional intelligence moderates the effect of sleep deprivation on moral reasoning [abstract]. Abstract presented at the 20th Meeting of the Associated Professional Sleep Societies, Salt Lake City, UT, June 17-22, 2006. SLEEP, 29 (Supplement), A135.
64. Murray, CJ, Killgore, DB, Kamimori, GH, & **Killgore, WD**. Individual differences in stress management capacity predict responsiveness to caffeine during sleep deprivation [abstract]. Abstract presented at the 20th Meeting of the Associated Professional Sleep Societies, Salt Lake City, UT, June 17-22, 2006. SLEEP, 29 (Supplement), A43.
65. Murray, CJ, Newman, R, O'Sullivan, M, Killgore, DB, Balkin, TJ, & **Killgore, WD**. Caffeine, dextroamphetamine, and modafinil fail to restore Stroop performance during sleep deprivation [abstract]. Abstract presented at the 20th Meeting of the Associated Professional Sleep Societies, Salt Lake City, UT, June 17-22, 2006. SLEEP, 29 (Supplement), A370-371.
66. Richards, J, Killgore, DB, & **Killgore, WD**. The effect of 44 hours of sleep deprivation on mood using the Visual Analog Mood Scales [abstract]. Abstract presented at the 20th Meeting of the Associated Professional Sleep Societies, Salt Lake City, UT, June 17-22, 2006. SLEEP, 29 (Supplement), A132.
67. Richards, J, & **Killgore, WD**. The effect of caffeine, dextroamphetamine, and modafinil on alertness and mood during sleep deprivation [abstract]. Abstract presented at the 20th Meeting of the Associated Professional Sleep Societies, Salt Lake City, UT, June 17-22, 2006. SLEEP, 29 (Supplement), A43.
68. Lipizzi, EL, Leavitt, BP, Killgore, DB, Kamimori, GH, & **Killgore, WD**. Decision making capabilities decline with increasing duration of wakefulness [abstract]. Abstract presented at the 20th Meeting of the Associated Professional Sleep Societies, Salt Lake City, UT, June 17-22, 2006. SLEEP, 29 (Supplement), A131.
69. Lipizzi, EL, Killgore, DB, Kahn-Green, E, Kamimori, GH, & **Killgore, WD**. Emotional intelligence scores decline during sleep deprivation [abstract]. Abstract presented at the 20th Meeting of the Associated Professional Sleep Societies, Salt Lake City, UT, June 17-22, 2006. SLEEP, 29 (Supplement), A131.
70. Kahn-Green, E, Day, L, Conrad, A, Leavitt, BP, Killgore, DB, & **Killgore, WD**. Short-term vs. long-term planning abilities: Differential effects of stimulants on executive function in sleep deprived individuals [abstract]. Abstract presented at the 20th Meeting of the Associated Professional Sleep Societies, Salt Lake City, UT, June 17-22, 2006. SLEEP, 29 (Supplement), A370.
71. Kahn-Green, E, Conrad, A, Killgore, DB, Kamimori, GH, & **Killgore, WD**. Tired and frustrated: Using a projective technique for assessing responses to stress during sleep deprivation [abstract]. Abstract presented at the 20th Meeting of the Associated Professional Sleep Societies, Salt Lake City, UT, June 17-22, 2006. SLEEP, 29 (Supplement), A130.

72. Killgore, DB, Kahn-Green, E, Balkin, TJ, Kamimori, GH, & **Killgore, WD**. 56 hours of wakefulness is associated with a sub-clinical increase in symptoms of psychopathology [abstract]. Abstract presented at the 20th Meeting of the Associated Professional Sleep Societies, Salt Lake City, UT, June 17-22, 2006. SLEEP, 29 (Supplement), A130.
73. Killgore, DB, McBride, SA, Balkin, TJ, Leavitt, BP, & **Killgore, WD**. Modafinil improves humor appreciation during sleep deprivation [abstract]. Abstract presented at the 20th Meeting of the Associated Professional Sleep Societies, Salt Lake City, UT, June 17-22, 2006. SLEEP, 29 (Supplement), A42.
74. Reichardt, RM, Killgore, DB, Lipizzi, EL, Li, CJ, Krugler, AL, & **Killgore, WD**. The effects of stimulants on recovery sleep and post-recovery verbal performance following 61-hours of sleep deprivation [abstract]. Abstract presented at the 20th Meeting of the Associated Professional Sleep Societies, Salt Lake City, UT, June 17-22, 2006. SLEEP, 29 (Supplement), A42.
75. Bailey, JD, Richards, J, & **Killgore, WD**. Prediction of mood fluctuations during sleep deprivation with the SAFTE Model [abstract]. Abstract presented at the 20th Meeting of the Associated Professional Sleep Societies, Salt Lake City, UT, June 17-22, 2006. SLEEP, 29 (Supplement), A60.
76. Kendall, AP, McBride, S. A, & **Killgore, WD**. Visuospatial perception of line orientation is resistant to one night of sleep loss [abstract]. Abstract presented at the 20th Meeting of the Associated Professional Sleep Societies, Salt Lake City, UT, June 17-22, 2006. SLEEP, 29 (Supplement), A369.
77. Kendall, AP, McBride, SA, Kamimori, GH, & **Killgore, WD**. The interaction of coping skills and stimulants on sustaining vigilance: Poor coping may keep you up at night [abstract]. Abstract presented at the 20th Meeting of the Associated Professional Sleep Societies, Salt Lake City, UT, June 17-22, 2006. SLEEP, 29 (Supplement), A129.
78. Muckle, A, Killgore, DB, & **Killgore, WD**. Gender differences in the effects of stimulant medications on the ability to estimate unknown quantities when sleep deprived [abstract]. Abstract presented at the 20th Meeting of the Associated Professional Sleep Societies, Salt Lake City, UT, June 17-22, 2006. SLEEP, 29 (Supplement), A369.
79. Krugler, AL, **Killgore, WD**, & Kamimori, G. H. Trait anger predicts resistance to sleep loss [abstract]. Abstract presented at the 20th Meeting of the Associated Professional Sleep Societies, Salt Lake City, UT, June 17-22, 2006. SLEEP, 29 (Supplement), A129.
80. **Killgore, WD**, Cotting, DI, Vo, A. H, Castro, CA, & Hoge, CW. The invincibility syndrome: Combat experiences predict risk-taking propensity following redeployment [abstract]. Abstract presented at the 9th Annual Force Health Protection Conference, Albuquerque, NM, August 6-11, 2006.
81. **Killgore, WD**, Wesensten, NJ, & Balkin, TJ. Stimulants improve tactical but not strategic planning during prolonged wakefulness [abstract]. Abstract presented at the 9th Annual Force Health Protection Conference, Albuquerque, NM, August 6-11, 2006.



82. **Killgore, WD**, Balkin, TJ, Wesensten, NJ, & Kamimori, G. H. The effects of sleep loss and caffeine on decision-making [abstract]. Abstract presented at the 9th Annual Force Health Protection Conference, Albuquerque, NM, August 6-11, 2006.
83. **Killgore, WD**, Balkin, TJ, & Kamimori, GH. Sleep loss can impair moral judgment [abstract]. Abstract presented at the 9th Annual Force Health Protection Conference, Albuquerque, NM, August 6-11, 2006.
84. **Killgore, WD**, Lipizzi, EL, Reichardt, RM, Kamimori, GH, & Balkin, TJ. Can stimulants reverse the effects of sleep deprivation on risky decision-making [abstract]? Abstract presented at the 25th Army Science Conference, Orlando, FL, November 27-30, 2006.
85. **Killgore, WD**, Killgore, DB, Kamimori, GH, & Balkin, TJ. Sleep deprivation impairs the emotional intelligence and moral judgment capacities of Soldiers [abstract]. Abstract presented at the 25th Army Science Conference, Orlando, FL, November 27-30, 2006.
86. **Killgore, WD**, Cotting, DI, Vo, AH, Castro, C.A, & Hoge, CW. The post-combat invincibility syndrome: Combat experiences increase risk-taking propensity following deployment [abstract]. Abstract presented at the 25th Army Science Conference, Orlando, FL, November 27-30, 2006.
87. Adam, GE, Szelenyi, ER, **Killgore, WD**, & Lieberman, HR. A double-blind study of two days of caloric deprivation: Effects on judgment and decision-making. Oral paper presentation at the Annual Scientific Meeting of the Aerospace Medical Association, New Orleans, LA, May, 2007.
88. Killgore, DB, Kahn-Greene, ET, Kamimori, GH, & **Killgore, WD**. The effects of acute caffeine withdrawal on short category test performance in sleep deprived individuals [abstract]. Abstract presented at the 21st Meeting of the Associated Professional Sleep Societies, Minneapolis, MN, June 9-14, 2007. SLEEP, 30 (Supplement), A43.
89. Richards, JM, Lipizzi, EL, Kamimori, GH, & **Killgore, WD**. Extroversion predicts change in attentional lapses during sleep deprivation [abstract]. Abstract presented at the 21st Meeting of the Associated Professional Sleep Societies, Minneapolis, MN, June 9-14, 2007. SLEEP, 30 (Supplement), A137.
90. Lipizzi, EL, Richards, JM, Balkin, TJ, Grugle, NL, & **Killgore, WD**. Morningness-Eveningness and Intelligence [abstract]. Abstract presented at the 21st Meeting of the Associated Professional Sleep Societies, Minneapolis, MN, June 9-14, 2007. SLEEP, 30 (Supplement), A345.
91. Lipizzi, EL, Richards, Balkin, TJ, Grugle, NL, & **Killgore WD**. Morningness-Eveningness affects risk-taking propensity during sleep deprivation [abstract]. Abstract presented at the 21st Meeting of the Associated Professional Sleep Societies, Minneapolis, MN, June 9-14, 2007. SLEEP, 30 (Supplement), A136.
92. McBride, SA, Ganesan, G, Kamimori, GH, & **Killgore, WD**. Odor identification ability predicts vulnerability to attentional lapses during 77 hours of sleep deprivation [abstract]. Abstract

presented at the 21st Meeting of the Associated Professional Sleep Societies, Minneapolis, MN, June 9-14, 2007. SLEEP, 30 (Supplement), A135.

93. Smith, KL, McBride, S. A, Kamimori, GH, & **Killgore, WD**. Individual differences in odor discrimination predict mood dysregulation following 56 hours of sleep deprivation [abstract]. Abstract presented at the 21st Meeting of the Associated Professional Sleep Societies, Minneapolis, MN, June 9-14, 2007. SLEEP, 30 (Supplement), A136.
94. McBride, SA, Leavitt, BP, Kamimori, GH, & **Killgore, WD**. Odor identification accuracy predicts resistance to sleep loss. Abstract presented at the 21st Meeting of the Associated Professional Sleep Societies, Minneapolis, MN, June 9-14, 2007. SLEEP, 30 (Supplement), A137.
95. Killgore, DB, McBride, SA, Balkin, TJ, Grugle, NL. & **Killgore, WD**. Changes in odor discrimination predict executive function deficits following 45 hours of wakefulness [abstract]. Abstract presented at the 21st Meeting of the Associated Professional Sleep Societies, Minneapolis, MN, June 9-14, 2007. SLEEP, 30 (Supplement), A136.
96. Rupp, TL, Killgore, DB, Balkin, TJ, Grugle, NL, & **Killgore, WD**. The effects of modafinil, dextroamphetamine, and caffeine on verbal and nonverbal fluency in sleep deprived individuals [abstract]. Abstract presented at the 21st Meeting of the Associated Professional Sleep Societies, Minneapolis, MN, June 9-14, 2007. SLEEP, 30 (Supplement), A43.
97. Newman, RA, Krugler, AL, Kamimori, GH, & **Killgore, WD**. Changes in state and trait anger following 56 hours of sleep deprivation [abstract]. Abstract presented at the 21st Meeting of the Associated Professional Sleep Societies, Minneapolis, MN, June 9-14, 2007. SLEEP, 30 (Supplement), A138.
98. Rupp, TL, Grugle, NL, Krugler, AL, Balkin, TJ, & **Killgore, WD**. Caffeine, dextroamphetamine, and modafinil improve PVT performance after sleep deprivation and recovery sleep [abstract]. Abstract presented at the 21st Meeting of the Associated Professional Sleep Societies, Minneapolis, MN, June 9-14, 2007. SLEEP, 30 (Supplement), A44.
99. **Killgore, WD**, Lipizzi, EL, Balkin, TJ, Grugle, NL, & Killgore, DB. The effects of sleep deprivation and stimulants on self-reported sensation seeking propensity [abstract]. Abstract presented at the 21st Meeting of the Associated Professional Sleep Societies, Minneapolis, MN, June 9-14, 2007. SLEEP, 30 (Supplement), A42.
100. **Killgore, WD**, Richards, JM, Balkin, TJ, Grugle, NL, & Killgore DB. The effects of sleep deprivation and stimulants on risky behavior [abstract]. Abstract presented at the 21st Meeting of the Associated Professional Sleep Societies, Minneapolis, MN, June 9-14, 2007. SLEEP, 30 (Supplement), A41.
101. Newman, RA, Smith, KL, Balkin, TJ, Grugle, NL, & **Killgore, WD**. The effects of caffeine, dextroamphetamine, and modafinil on executive functioning following 45 hours of sleep deprivation [abstract]. Abstract presented at the 21st Meeting of the Associated Professional Sleep Societies, Minneapolis, MN, June 9-14, 2007. SLEEP, 30 (Supplement), A45.

102. Richards, JM, Lipizzi, EL, Balkin, TJ, Grugle, NL, & **Killgore, WD**. Objective alertness predicts mood changes during 44 hours of sleep deprivation [abstract]. Abstract presented at the 21st Meeting of the Associated Professional Sleep Societies, Minneapolis, MN, June 9-14, 2007. SLEEP, 30 (Supplement), A56.
103. **Killgore, WD**, & Yurgelun-Todd, DA. Cortical and Limbic Activation in Response to Visual Images of Low and High-Caloric Food [abstract]. Oral symposium presented at the 6<sup>th</sup> Annual Conference of the Society of Behavioral Nutrition and Physical Activity (ISBNPA), Oslo, Norway, June 20-23, 2007. Proceedings of the ISBNPA, 2007, 75.
104. Estrada, A, **Killgore, WD**, Rouse, T, Balkin, TJ, & Wildzun, RM. Total sleep time measured by actigraphy predicts academic performance during military training [abstract]. Abstract presented at the 22nd Meeting of the Associated Professional Sleep Societies, Baltimore, MD, June 7-12, 2008. SLEEP, 31 (Supplement), A134.
105. **Killgore, WD**, Lipizzi, EL, Smith, KL, Killgore, DB, Rupp, TL, Kamimori, GH, & Balkin, T. J. Nonverbal intelligence is inversely related to the ability to resist sleep loss [abstract]. Abstract presented at the 22nd Meeting of the Associated Professional Sleep Societies, Baltimore, MD, June 7-12, 2008. SLEEP, 31 (Supplement), A134.
106. **Killgore, WD**, Lipizzi, EL, Killgore, DB, Rupp, TL, Kamimori, GH, & Balkin, TJ. Emotional intelligence predicts declines in emotion-based decision-making following sleep deprivation [abstract]. Abstract presented at the 22nd Meeting of the Associated Professional Sleep Societies, Baltimore, MD, June 7-12, 2008. SLEEP, 31 (Supplement), A134.
107. Reid, CT, Smith, K, **Killgore, WD**, Rupp, TL, & Balkin, TJ. Higher intelligence is associated with less subjective sleepiness during sleep restriction [abstract]. Abstract presented at the 22nd Meeting of the Associated Professional Sleep Societies, Baltimore, MD, June 7-12, 2008. SLEEP, 31 (Supplement), A375.
108. Newman, R, **Killgore, WD**, Rupp, T. L, & Balkin, TJ. Better baseline olfactory discrimination is associated with worse PVT and MWT performance with sleep restriction and recovery [abstract]. Abstract presented at the 22nd Meeting of the Associated Professional Sleep Societies, Baltimore, MD, June 7-12, 2008. SLEEP, 31 (Supplement), A375.
109. Smith, KL, Reid, CT, **Killgore, WD**, Rupp, TL, & Balkin, TJ. Personality factors associated with performance and sleepiness during sleep restriction and recovery [abstract]. Abstract presented at the 22nd Meeting of the Associated Professional Sleep Societies, Baltimore, MD, June 7-12, 2008. SLEEP, 31 (Supplement), A376.
110. Lipizzi, EL, **Killgore, WD**, Rupp, TL, & Balkin, TJ. Risk-taking behavior is elevated during recovery from sleep restriction [abstract]. Abstract presented at the 22nd Meeting of the Associated Professional Sleep Societies, Baltimore, MD, June 7-12, 2008. SLEEP, 31 (Supplement), A376.
111. Lipizzi, EL, Rupp, TL, **Killgore, WD**, & Balkin, TJ. Sleep restriction increases risk-taking behavior [abstract]. Poster presented at the 11th Annual Force Health Protection Conference,

Albuquerque, NM, August, 9-15, 2008.

112. **Killgore, WD**, Estrada, A, Balkin, TJ, & Wildzunas, RM. Sleep duration during army training predicts course performance [abstract]. Poster presented at the 6th Annual Force Health Protection Conference, Albuquerque, NM, August, 11-17, 2008.
113. **Killgore, WD**, Lipizzi, EL, Smith, KL, Killgore, DB, Rupp, TL, Kamimori, GH, & Balkin, TJ. Higher cognitive ability is associated with reduced relative resistance to sleep loss [abstract]. Poster presented at the 6th Annual Force Health Protection Conference, Albuquerque, NM, August, 11-17, 2008.
114. **Killgore, WD**, Rupp, TL, Grugle, NL, Lipizzi, EL, & Balkin, TJ. Maintaining alertness during sustained operations: Which stimulant is most effective after 44 hours without sleep [abstract]? Poster presented at the 6th Annual Force Health Protection Conference, Albuquerque, NM, August, 11-17, 2008.
115. **Killgore, WD**, Newman, RA, Lipizzi, EL, Kamimori, GH, & Balkin, TJ. Sleep deprivation increases feelings of anger but reduces verbal and physical aggression in Soldiers [abstract]. Poster presented at the 6th Annual Force Health Protection Conference, Albuquerque, NM, August, 11-17, 2008.
116. Kelley, AM, Dretsch, M, **Killgore, WD**, & Athy, JR. Risky behaviors and attitudes about risk in Soldiers. Abstract presented at the 29<sup>th</sup> Annual Meeting of the Society for Judgment and Decision Making, Chicago, IL, November, 2008.
117. **Killgore, WD**, Ross, AJ, Silveri, MM, Gruber, SA, Kamiya, T, Kawada, Y, Renshaw, PF, & Yurgelun-Todd, DA. Citicoline affects appetite and cortico-limbic responses to images of high calorie foods. Abstract presented at the Society for Neuroscience, Washington DC, November 19, 2008.
118. Britton, JC, Stewart, SE, Price, LM, **Killgore, WD**, Gold, AL, Jenike, MA, & Rauch, SL. Reduced amygdalar activation in response to emotional faces in pediatric Obsessive-Compulsive Disorder. Abstract presented at the Annual meeting of the American College of Neuropsychopharmacology, Scottsdale, AZ, December 7-11, 2008.
119. **Killgore, WD**, Balkin, TJ, Estrada, A, & Wildzunas, RM. Sleep and performance measures in soldiers undergoing military relevant training. Abstract presented at the 26<sup>th</sup> Army Science Conference, Orlando, FL, December 1-4, 2008.
120. **Killgore, WD** & Yurgelun-Todd, DA. Cerebral correlates of amygdala responses during non-conscious perception of affective faces in adolescent children. Abstract presented at the 37<sup>th</sup> Annual Meeting of the International Neuropsychological Society, Atlanta, GA, February 11-14, 2009.
121. **Killgore, WD**, Killgore, DB, Grugle, NL, & Balkin, TJ. Odor identification ability predicts executive function deficits following sleep deprivation. Abstract presented the 37<sup>th</sup> Annual Meeting of the International Neuropsychological Society, Atlanta, GA, February 11-14, 2009.
122. **Killgore, WD**, Rupp, TL, Killgore, DB, Grugle, NL, and Balkin, TJ. Differential effects of

stimulant medications on verbal and nonverbal fluency during sleep deprivation. Abstract presented the 37<sup>th</sup> Annual Meeting of the International Neuropsychological Society, Atlanta, GA, February 11-14, 2009.

123. **Killgore, WD**, Killgore, DB, Kamimori, GH, & Balkin, TJ. When being smart is a liability: More intelligent individuals may be less resistant to sleep deprivation. Abstract presented the 37<sup>th</sup> Annual Meeting of the International Neuropsychological Society, Atlanta, GA, February 11-14, 2009.
124. **Killgore, WD**, Britton, JC, Price, LM, Gold, AL, Deckersbach, T, & Rauch, SL. Introversion is associated with greater amygdala and insula activation during viewing of masked affective stimuli. Abstract presented the 37<sup>th</sup> Annual Meeting of the International Neuropsychological Society, Atlanta, GA, February 11-14, 2009.
125. **Killgore, WD**, Britton, JC, Price, LM, Gold, AL, Deckersbach, T, & Rauch, SL. Amygdala responses of specific animal phobics do not differ from healthy controls during masked fearful face perception. Abstract presented the 37<sup>th</sup> Annual Meeting of the International Neuropsychological Society, Atlanta, GA, February 11-14, 2009.
126. **Killgore, WD**, Britton, JC, Price, LM, Gold, AL, Deckersbach, T, & Rauch, SL. Small animal phobics show sustained amygdala activation in response to masked happy facial expressions. Abstract presented the 37<sup>th</sup> Annual Meeting of the International Neuropsychological Society, Atlanta, GA, February 11-14, 2009. [*\*Merit Poster Award*]
127. Price, LM, **Killgore, WD**, Britton, JC, Kaufman, ML, Gold, AL, Deckersbach, T, & Rauch, SL. Anxiety sensitivity correlates with insula activation in response to masked fearful faces in specific animal phobics and healthy subjects. Abstract presented at the Annual Conference of the Anxiety Disorders Association of America, Santa Ana Pueblo, New Mexico, March 12-15, 2009.
128. **Killgore, WD**, Britton, JC, Price, LM, Gold, AL, Deckersbach, T, & Rauch, SL. Neuroticism is inversely correlated with amygdala and insula activation during masked presentations of affective stimuli. Abstract presented at the Annual Conference of the Anxiety Disorders Association of America, Santa Ana Pueblo, New Mexico, March 12-15, 2009.
129. **Killgore, WD**, Kelley, AM, & Balkin, TJ. Development and validation of a scale to measure the perception of invincibility. Abstract presented at the Annual Conference of the Anxiety Disorders Association of America, Santa Ana Pueblo, New Mexico, March 12-15, 2009.
130. Kelly, AM, **Killgore WD**, Athy, J, & Dretsch, M. Risk propensity, risk perception, risk aversion, and sensation seeking in U.S. Army soldiers. Abstract presented at the 80<sup>th</sup> Annual Scientific Meeting of the Aerospace Medical Association, Los Angeles, CA, May 3-7, 2009.
131. Britton, JC, Stewart, SE, Price, LM, **Killgore, WD**, Jenike, MA, & Rauch, SL. The neural correlates of negative priming in pediatric obsessive-compulsive disorder (OCD). Abstract presented at the 64<sup>th</sup> Annual Scientific Meeting of the Society of Biological Psychiatry, Vancouver, Canada, May 14-16, 2009.

132. **Killgore, WD**, Killgore, DB, Kamimori, GH, & Balkin, TJ. Caffeine protects against increased risk-taking behavior during severe sleep deprivation. Abstract presented at the 23<sup>rd</sup> Annual Meeting of the Associated Professional Sleep Societies, Seattle, Washington, June 7-12, 2009.
133. Killgore, DB, **Killgore, WD**, Grugle, NL, & Balkin, TJ. Executive functions predict the ability to sustain psychomotor vigilance during sleep loss. Abstract presented at the 23<sup>rd</sup> Annual Meeting of the Associated Professional Sleep Societies, Seattle, Washington, June 7-12, 2009.
134. **Killgore, WD**, & Yurgelun-Todd, DA. Trouble falling asleep is associated with reduced activation of dorsolateral prefrontal cortex during a simple attention task. Abstract presented at the 23<sup>rd</sup> Annual Meeting of the Associated Professional Sleep Societies, Seattle, Washington, June 7-12, 2009.
135. **Killgore, WD**, Kelley, AM, & Balkin, TJ. A new scale for measuring the perception of invincibility. Abstract presented at the 12<sup>th</sup> Annual Force Health Protection Conference, Albuquerque, New Mexico, August 14-21, 2009.
136. **Killgore, WD**, Killgore, DB, Grugle, NL, & Balkin, TJ. Executive functions contribute to the ability to resist sleep loss. Abstract presented at the 12<sup>th</sup> Annual Force Health Protection Conference, Albuquerque, New Mexico, August 14-21, 2009.
137. **Killgore, WD**, Killgore, DB, Kamimori, GH, & Balkin, TJ. Caffeine reduces risk-taking behavior during severe sleep deprivation. Abstract presented at the 12<sup>th</sup> Annual Force Health Protection Conference, Albuquerque, New Mexico, August 14-21, 2009. [***\*Best Paper: Research***]
138. **Killgore, WD**, Castro, CA, & Hoge, CW. Normative data for the Evaluation of Risks Scale—Bubble Sheet Version (EVAR-B) for large scale surveys of returning combat veterans. Abstract presented at the 12<sup>th</sup> Annual Force Health Protection Conference, Albuquerque, New Mexico, August 14-21, 2009.
139. **Killgore, WD**, Castro, CA, & Hoge, CW. Combat exposure and post-deployment risky behavior. Abstract presented at the 12<sup>th</sup> Annual Force Health Protection Conference, Albuquerque, New Mexico, August 14-21, 2009.
140. **Killgore, WD**, Price, LM, Britton, JC, Simon, N, Pollack, MH, Weiner, MR, Schwab, ZJ, Rosso, IM, & Rauch, SL. Paralimbic responses to masked emotional faces in PTSD: Disorder and valence specificity. Abstract presented at the Annual McLean Hospital Research Day, January 29, 2010.
141. **Killgore, WD**, Killgore, DB, Kamimori, GH, & Balkin, TJ. Caffeine minimizes behavioral risk-taking during 75 hours of sleep deprivation. Abstract presented at the 38<sup>th</sup> Annual Meeting of the International Neuropsychological Society, Acapulco, Mexico, February 3-6, 2010.
142. **Killgore, WD** & Balkin, TJ. Vulnerability to sleep loss is affected by baseline executive function capacity. Abstract presented at the 38<sup>th</sup> Annual Meeting of the International Neuropsychological Society, Acapulco, Mexico, February 3-6, 2010.

143. **Killgore, WD**, Smith, KL, Reichardt, RM., Killgore, DB, & Balkin, TJ. Intellectual capacity is related to REM sleep following sleep deprivation. Abstract presented at the 38<sup>th</sup> Annual Meeting of the International Neuropsychological Society, Acapulco, Mexico, February 3-6, 2010.
144. **Killgore, WD** & Yurgelun-Todd, DA. Cerebral correlates of amygdala responses to masked fear, anger, and happiness in adolescent and pre-adolescent children. Abstract presented at the 38<sup>th</sup> Annual Meeting of the International Neuropsychological Society, Acapulco, Mexico, February 3-6, 2010.
145. **Killgore, WD**, Post, A, & Yurgelun-Todd, DA. Sex differences in cortico-limbic responses to images of high calorie food. Abstract presented at the 38<sup>th</sup> Annual Meeting of the International Neuropsychological Society, Acapulco, Mexico, February 3-6, 2010.
146. **Killgore, WD** & Yurgelun-Todd, DA. Self-reported insomnia is associated with increased activation within the default-mode network during a simple attention task. Abstract presented at the 38<sup>th</sup> Annual Meeting of the International Neuropsychological Society, Acapulco, Mexico, February 3-6, 2010.
147. **Killgore, WD**, Price, LM, Britton, JC, Gold, AL, Deckersbach, T, & Rauch, SL. Neural correlates of anxiety sensitivity factors during presentation of masked fearful faces. Abstract presented at the 38<sup>th</sup> Annual Meeting of the International Neuropsychological Society, Acapulco, Mexico, February 3-6, 2010.
148. **Killgore, WD**, Grugle, NL, Conrad, TA, & Balkin, TJ. Baseline executive function abilities predict risky behavior following sleep deprivation. Abstract presented at the 24th Annual Meeting of the Associated Professional Sleep Societies, San Antonio, Texas, June 5-9, 2010.
149. **Killgore, WD**, Grugle, NL, & Balkin, TJ. Judgment of objective vigilance performance is affected by sleep deprivation and stimulants. Abstract presented at the 24th Annual Meeting of the Associated Professional Sleep Societies, San Antonio, Texas, June 5-9, 2010.
150. Killgore, DB, **Killgore, WD**, Grugle, NL, & Balkin, TJ. Resistance to sleep loss and its relationship to decision making during sleep deprivation. Abstract presented at the 24th Annual Meeting of the Associated Professional Sleep Societies, San Antonio, Texas, June 5-9, 2010.
151. Killgore DB, **Killgore, WD**, Grugle, NL, & Balkin, TJ. Subjective sleepiness and objective performance: Differential effects of stimulants during sleep deprivation. Abstract presented at the 24th Annual Meeting of the Associated Professional Sleep Societies, San Antonio, Texas, June 5-9, 2010.
152. Rupp, TL, **Killgore, WD**, & Balkin, TJ. Vulnerability to sleep deprivation is differentially mediated by social exposure in extraverts vs. introverts. Oral presentation at the "Data Blitz" section at the 24th Annual Meeting of the Associated Professional Sleep Societies, San Antonio, Texas, June 5-9, 2010.
153. Rupp, TL, **Killgore, WD**, & Balkin, TJ. Extraverts may be more vulnerable than introverts to

sleep deprivation on some measures of risk-taking and executive functioning. Abstract presented at the 24th Annual Meeting of the Associated Professional Sleep Societies, San Antonio, Texas, June 5-9, 2010.

154. Rupp, TL, **Killgore, WD**, & Balkin, TJ. Vulnerability to sleep deprivation is differentially mediated by social exposure in extraverts vs. introverts. Abstract presented at the 24th Annual Meeting of the Associated Professional Sleep Societies, San Antonio, Texas, June 5-9, 2010.
155. Capaldi, VF, Guerrero, ML, & **Killgore, WD**. Sleep disorders among OIF and OEF Soldiers. Abstract presented at the 24th Annual Meeting of the Associated Professional Sleep Societies, San Antonio, Texas, June 5-9, 2010.
156. **Killgore, WD**, Killgore, DB, Kamimori, GH, & Balkin, TJ. Caffeine reduces behavioral risk-taking during sleep deprivation. Abstract presented at the 65<sup>th</sup> Annual Meeting of the Society for Biological Psychiatry, New Orleans, Louisiana, May 20-22, 2010.
157. **Killgore, WD**, Price, LM, Britton, JC, Simon, N, Pollack, MH, Weiner, MR, Schwab, ZJ, Rosso, IM, & Rauch, SL. Paralimbic responses to masked emotional faces in PTSD: Disorder and valence specificity. Abstract presented at the 65<sup>th</sup> Annual Meeting of the Society for Biological Psychiatry, New Orleans, Louisiana, May 20-22, 2010.
158. Rosso, IM, Makris, N, Britton, JC, Price, LM, Gold, AL, Deckersbach, T, **Killgore, WD**, & Rauch SL. Anxiety sensitivity correlates with insular cortex volume and thickness in specific animal phobia. Abstract presented at the 65<sup>th</sup> Annual Meeting of the Society for Biological Psychiatry, New Orleans, Louisiana, May 20-22, 2010.
159. Rupp, TL, **Killgore, WD**, & Balkin, TJ. Vulnerability to sleep deprivation is mediated by social exposure in extraverts versus introverts. Oral platform presentation at the 20<sup>th</sup> Congress of the European Sleep Research Society, Lisbon, Portugal, September 14-18, 2010.
160. **Killgore, WD**, Estrada, A, & Balkin, TJ. A tool for monitoring soldier fatigue and predicting cognitive readiness: The Sleep History and Readiness Predictor (SHARP). Abstract presented at the 27<sup>th</sup> Army Science Conference, Orlando, FL, November 29-December 2, 2010.
161. **Killgore, WD**, Kamimori, GH, & Balkin, TJ. Caffeinated gum minimizes risk-taking in soldiers during prolonged sleep deprivation. Abstract presented at the 27<sup>th</sup> Army Science Conference, Orlando, FL, November 29-December 2, 2010.
162. **Killgore, WD**, Britton, JC, Schwab, ZJ, Weiner, MR, Rosso, IM, & Rauch, SL. Exaggerated amygdala responses to masked fearful faces are specific to PTSD versus simple phobia. Oral platform presentation at the 27<sup>th</sup> Army Science Conference, Orlando, FL, November 29-December 2, 2010. [***Winner Best Paper in Neuroscience***]
163. **Killgore, WD**, Kamimori, GH, & Balkin, TJ. Sleep deprivation selectively impairs emotional aspects of cognitive functioning. Oral platform presentation at the 27<sup>th</sup> Army Science Conference, Orlando, FL, November 29-December 2, 2010.
164. Rupp, TL, **Killgore, WD**, & Balkin, TJ. Evaluation of personality and social exposure as



individual difference factors influencing response to sleep deprivation. Oral platform presentation at the 27<sup>th</sup> Army Science Conference, Orlando, FL, November 29-December 2, 2010.

165. **Killgore, WD**, Britton, JC, Rosso, IM, Schwab, ZJ, Weiner, MR, & Rauch, SL. Shared and differential patterns of amygdalo-cortical activation across anxiety disorders. Abstract presented at the 49<sup>th</sup> Annual Meeting of the American College of Neuropsychopharmacology, Miami Beach, FL, December 5-9, 2010.
166. Rosso, IM, **Killgore, WD**, Britton, JC, Weiner, MR, Schwab, ZJ, & Rauch, SL. Neural correlates of PTSD symptom dimensions during emotional processing: A functional magnetic resonance imaging study. Abstract presented at the 49<sup>th</sup> Annual Meeting of the American College of Neuropsychopharmacology, Miami Beach, FL, December 5-9, 2010.
167. **Killgore, WD**, Rosso, IM, Britton, JC, Schwab, ZJ, Weiner, MR, & Rauch, SL. Cortico-limbic activation differentiates among anxiety disorders with and without a generalized threat response. Abstract presented at the McLean Hospital Research Day, January 13, 2011.
168. Weiner, MR, Schwab, ZJ, Rauch, SL, & **Killgore WD**. Personality factors predict brain responses to images of high-calorie foods. Abstract presented at the McLean Hospital Research Day, January 13, 2011.
169. Schwab, ZJ, Weiner, MR, Rauch, SL, & **Killgore, WD**. Emotional and cognitive intelligence: Support for the neural efficiency hypothesis. Abstract presented at the McLean Hospital Research Day, January 13, 2011.
170. Crowley, DJ, Covell, MJ, **Killgore, WD**, Schwab, ZJ, Weiner, MR, Acharya, D, Rosso, IM, & Silveri, MM. Differential influence of facial expression on inhibitory capacity in adolescents versus adults. Abstract presented at the McLean Hospital Research Day, January 13, 2011.
171. **Killgore, WD**, Britton, JC, Rosso, IM, Schwab, ZJ, Weiner, MR, & Rauch, SL. Similarities and differences in cortico-limbic responses to masked affect probes across anxiety disorders. Abstract presented at the 39<sup>th</sup> Annual Meeting of the International Neuropsychological Society, Boston, MA, February 2-5, 2011.
172. Rosso, IM, **Killgore, WD**, Britton, JC, Weiner, MR, Schwab, ZJ, & Rauch, SL. Hyperarousal and reexperiencing symptoms of post-traumatic stress disorder are differentially associated with limbic-prefrontal brain responses to threatening stimuli. Abstract presented at the 39<sup>th</sup> Annual Meeting of the International Neuropsychological Society, Boston, MA, February 2-5, 2011.
173. Schwab, ZJ, Weiner, MR, Rauch, SL, & **Killgore, WD**. Neural correlates of cognitive and emotional intelligence in adults. Abstract presented at the 39<sup>th</sup> Annual Meeting of the International Neuropsychological Society, Boston, MA, February 2-5, 2011.
174. Schwab, ZJ, Weiner, MR, Rauch, SL, & **Killgore, WD**. Cognitive and emotional intelligences: Are they distinct or related constructs? Abstract presented at the 39<sup>th</sup> Annual Meeting of the International Neuropsychological Society, Boston, MA, February 2-5, 2011.

175. Schwab, ZJ, Weiner, MR, Rauch, SL, & **Killgore, WD**. Discrepancy scores between cognitive and emotional intelligence predict neural responses to affective stimuli. Abstract presented at the 39th Annual Meeting of the International Neuropsychological Society, Boston, MA, February 2-5, 2011.
176. **Killgore, WD**, Schwab, ZJ, Weiner, MR, & Rauch, SL. Smart people go with their gut: Emotional intelligence correlates with non-conscious insular responses to facial trustworthiness. Abstract presented at the 39th Annual Meeting of the International Neuropsychological Society, Boston, MA, February 2-5, 2011.
177. **Killgore, WD**, Weiner, MR, Schwab, ZJ, & Rauch, SL. Whom can you trust? Neural correlates of subliminal perception of facial trustworthiness. Abstract presented at the 39th Annual Meeting of the International Neuropsychological Society, Boston, MA, February 2-5, 2011.
178. Weiner, MR, Schwab, ZJ, & Rauch, SL, **Killgore, WD**. Impulsiveness predicts responses of brain reward circuitry to high-calorie foods. Abstract presented at the 39th Annual Meeting of the International Neuropsychological Society, Boston, MA, February 2-5, 2011.
179. Weiner, MR, Schwab, ZJ, & Rauch, SL, **Killgore, WD**. Conscientiousness predicts brain responses to images of high-calorie foods. Abstract presented at the 39th Annual Meeting of the International Neuropsychological Society, Boston, MA, February 2-5, 2011.
180. Crowley, DJ, Covell, MJ, **Killgore, WD**, Schwab, ZJ, Weiner, MR, Acharya, D, Rosso, IM, & Silveri, MM. Differential influence of facial expression on inhibitory capacity in adolescents versus adults. Abstract presented at the 39th Annual Meeting of the International Neuropsychological Society, Boston, MA, February 2-5, 2011.
181. Gruber, SA, Dahlgren, MK, **Killgore, WD**, Sagar, KA, & Racine, MT. Marijuana: Age of onset of use impacts executive function and brain activation. Abstract presented at the 39th Annual Meeting of the International Neuropsychological Society, Boston, MA, February 2-5, 2011.
182. **Killgore, WD**, Conrad, TA, Grugle, NL, & Balkin, TJ. Baseline executive function abilities correlate with risky behavior following sleep deprivation. Abstract presented at the 39th Annual Meeting of the International Neuropsychological Society, Boston, MA, February 2-5, 2011.
183. **Killgore, WD**, Grugle, NL, Killgore, DB, & Balkin, TJ. Resistance to sleep loss and decision making during sleep deprivation. Abstract presented at the 39th Annual Meeting of the International Neuropsychological Society, Boston, MA, February 2-5, 2011.
184. **Killgore, WD**, Rosso, IM, Britton, JC, Schwab, ZJ, Weiner, MR, & Rauch, SL. Cortico-limbic activation differentiates among anxiety disorders with and without a generalized threat response. Abstract presented at the 66<sup>th</sup> Annual Meeting of the Society for Biological Psychiatry, San Francisco, CA, May 12-14, 2011. [*\*Blue Ribbon Finalist: Clinical/Translational*]
185. Schwab, ZJ, Weiner, MR, Rauch, SL, & **Killgore, WD**. Emotional and cognitive intelligence:

Support for the neural efficiency hypothesis. Abstract presented at the 66<sup>th</sup> Annual Meeting of the Society for Biological Psychiatry, San Francisco, CA, May 12-14, 2011.

186. Weiner, MR, Schwab, ZJ, Rauch, SL, & **Killgore WD**. Personality factors predict brain responses to images of high-calorie foods. Abstract presented at the 66<sup>th</sup> Annual Meeting of the Society for Biological Psychiatry, San Francisco, CA, May 12-14, 2011.
187. **Killgore, WD**, Grugle, NL, & Balkin, TJ. Sleep deprivation impairs recognition of specific emotions. Abstract presented at the 25<sup>th</sup> Annual Meeting of the Associated Professional Sleep Societies, Minneapolis, MN, June 11-15, 2011.
188. **Killgore, WD**, & Balkin, TJ. Does vulnerability to sleep deprivation influence the effectiveness of stimulants on psychomotor vigilance? Abstract presented at the 25<sup>th</sup> Annual Meeting of the Associated Professional Sleep Societies, Minneapolis, MN, June 11-15, 2011.
189. Killgore, DB, **Killgore, WD**, Grugle, NJ, & Balkin, TJ. Sleep deprivation impairs recognition of specific emotions. Abstract presented at the 25<sup>th</sup> Annual Meeting of the Associated Professional Sleep Societies, Minneapolis, MN, June 11-15, 2011.
190. Weiner, MR, Schwab, ZJ, & **Killgore, WD**. Daytime sleepiness is associated with altered brain activation during visual perception of high-calorie foods: An fMRI study. Abstract presented at the 25<sup>th</sup> Annual Meeting of the Associated Professional Sleep Societies, Minneapolis, MN, June 11-15, 2011.
191. Schwab, ZJ, Weiner, MR, & **Killgore, WD**. Functional MRI correlates of morningness-eveningness during visual presentation of high calorie foods. Abstract presented at the 25<sup>th</sup> Annual Meeting of the Associated Professional Sleep Societies, Minneapolis, MN, June 11-15, 2011.
192. **Killgore, WD**, Weiner, MR, & Schwab, ZJ. Daytime sleepiness affects prefrontal regulation of food intake. Abstract presented at the McLean Hospital Research Day, January 11, 2012.
193. Kipman, M, Schwab ZJ, Weiner, MR, DelDonno, S, Rauch SL, & **Killgore WD**. The insightful yet bitter comedian: The role of emotional versus cognitive intelligence in humor appreciation. Abstract presented at the McLean Hospital Research Day, January 11, 2012.
194. Weber, M, & **Killgore, WD**. Gray matter correlates of emotional intelligence. Abstract presented at the McLean Hospital Research Day, January 11, 2012.
195. Schwab, ZJ, & **Killgore, WD**. Sex differences in functional brain responses to food. Abstract presented at the McLean Hospital Research Day, January 11, 2012.
196. DelDonno, S, Schwab, ZJ, Kipman M, Rauch, SL, & **Killgore, WD**. The influence of cognitive and emotional intelligence on performance on the Iowa Gambling Task. Abstract presented at the McLean Hospital Research Day, January 11, 2012.
197. Song, CH, Kizielewicz, J, Schwab, ZJ, Weiner, MR, Rauch, SL, & **Killgore, WD**. Time is of the essence: The Design Organization Test as a valid, reliable, and brief measure of visuospatial

ability. Abstract presented at the 40th Annual Meeting of the International Neuropsychological Society, Montreal, CA, February 15-18, 2012.

198. Kipman, M, Schwab, ZJ, DelDonno, S, & **Killgore, WD**. Gender differences in the contribution of cognitive and emotional intelligence to the left visual field bias for facial perception. Abstract presented at the 40th Annual Meeting of the International Neuropsychological Society, Montreal, CA, February 15-18, 2012.
199. Kipman, M., Schwab, ZJ, Weiner, MR, DelDonno, S, Rauch, SL, & **Killgore, WD**. Contributions of emotional versus cognitive intelligence in humor appreciation. Abstract presented at the 40th Annual Meeting of the International Neuropsychological Society, Montreal, CA, February 15-18, 2012.
200. Schwab, ZJ, & **Killgore, WD**. Disentangling emotional and cognitive intelligence. Abstract presented at the 40th Annual Meeting of the International Neuropsychological Society, Montreal, CA, February 15-18, 2012.
201. Schwab, ZJ, & **Killgore, WD**. Sex differences in functional brain responses to food. Abstract presented at the 40th Annual Meeting of the International Neuropsychological Society, Montreal, CA, February 15-18, 2012.
202. DelDonno, S, Schwab, ZJ, Kipman, M, Rauch, SL, & **Killgore, WD**. The influence of cognitive and emotional intelligence on performance on the Iowa Gambling Task. Abstract presented at the 40th Annual Meeting of the International Neuropsychological Society, Montreal, CA, February 15-18, 2012.
203. **Killgore, WD**, Britton, JC, Rosso, IM, Schwab, ZJ, Weiner, MR, & Rauch, SL. Shared and unique patterns of cortico-limbic activation across anxiety disorders. Abstract presented at the 40th Annual Meeting of the International Neuropsychological Society, Montreal, CA, February 15-18, 2012.
204. **Killgore, WD**, & Balkin, TJ. Sleep deprivation degrades recognition of specific emotions. Abstract presented at the 40th Annual Meeting of the International Neuropsychological Society, Montreal, CA, February 15-18, 2012.
205. **Killgore, WD**, & Schwab, ZJ. Emotional intelligence correlates with somatic marker circuitry responses to subliminal cues of facial trustworthiness. Abstract presented at the 40th Annual Meeting of the International Neuropsychological Society, Montreal, CA, February 15-18, 2012.
206. **Killgore, WD**, & Schwab, ZJ. Trust me! Neural correlates of the ability to identify facial trustworthiness. Abstract presented at the 40th Annual Meeting of the International Neuropsychological Society, Montreal, CA, February 15-18, 2012.
207. **Killgore, WD**, Schwab, ZJ, Weiner, MR, Kipman, M, DelDonno, S, & Rauch SL. Overeating is associated with altered cortico-limbic responses to images of high calorie foods. Abstract presented at the 40th Annual Meeting of the International Neuropsychological Society, Montreal, CA, February 15-18, 2012.

208. **Killgore, WD**, Weiner, MR, & Schwab, ZJ. Daytime sleepiness affects prefrontal regulation of food intake. Abstract presented at the 40th Annual Meeting of the International Neuropsychological Society, Montreal, CA, February 15-18, 2012.
209. Weber, M, DelDonno, S, Kipman M, Schwab, ZJ, & **Killgore WD**. Grey matter correlates of self-reported sleep duration. Abstract presented at the Harvard Medical School Research Day, Boston, MA, March 28, 2012.
210. **Killgore, WD**. Overlapping and distinct patterns of neurocircuitry across PTSD, Panic Disorder, and Simple Phobia. Abstract presented at the 32nd Annual Conference of the Anxiety Disorders Association of America, Arlington, VA, April 12-15, 2012.
211. **Killgore, WD**, Britton, JC, Rosso, IM, Schwab, ZJ, & Rauch, SL. Shared and unique patterns of cortico-limbic activation across anxiety disorders. Abstract presented at the 67<sup>th</sup> Annual Meeting of the Society of Biological Psychiatry, Philadelphia, PA, May 3-5, 2012.
212. **Killgore, WD**, Schwab, ZJ, & Rauch, SL. Daytime sleepiness affects prefrontal inhibition of food consumption. Abstract presented at the 67<sup>th</sup> Annual Meeting of the Society of Biological Psychiatry, Philadelphia, PA, May 3-5, 2012.
213. Rosso, IM, Britton, JC, Makris, N, **Killgore, WD**, Rauch SL, & Stewart ES. Impact of major depression comorbidity on prefrontal and anterior cingulate volumes in pediatric OCD. Abstract presented at the 67<sup>th</sup> Annual Meeting of the Society of Biological Psychiatry, Philadelphia, PA, May 3-5, 2012.
214. Kipman, M, Weber, M, DelDonno, S., Schwab, ZJ, & **Killgore, WD**. Morningness-Eveningness correlates with orbitofrontal gray matter volume. Abstract presented at the 26<sup>th</sup> Annual Meeting of the Associated Professional Sleep Societies, Boston, MA, June 9-13, 2012.
215. Kipman, M, Schwab, ZJ, Weber, M, DelDonno, S, & **Killgore, WD**. Yawning frequency is correlated with reduced medial thalamic volume. Abstract presented at the 26<sup>th</sup> Annual Meeting of the Associated Professional Sleep Societies, Boston, MA, June 9-13, 2012.
216. Weber, M, DelDonno, S, Kipman M, Schwab, ZJ, & **Killgore WD**. Grey matter correlates of daytime sleepiness. Abstract presented at the 26<sup>th</sup> Annual Meeting of the Associated Professional Sleep Societies, Boston, MA, June 9-13, 2012.
217. Weber, M, DelDonno, S, Kipman M, Schwab, ZJ, & **Killgore WD**. Grey matter correlates of self-reported sleep duration. Abstract presented at the 26<sup>th</sup> Annual Meeting of the Associated Professional Sleep Societies, Boston, MA, June 9-13, 2012.
218. DelDonno, S, Weber, M, Kipman M, Schwab, ZJ, & **Killgore, WD**. Resistance to insufficient sleep correlates with olfactory cortex gray matter. Abstract presented at the 26<sup>th</sup> Annual Meeting of the Associated Professional Sleep Societies, Boston, MA, June 9-13, 2012.
219. DelDonno, S, Schwab, ZJ, Kipman, M, Weber, M, & **Killgore, WD**. Weekend sleep is related to greater coping and resilience capacities. Abstract presented at the 26<sup>th</sup> Annual Meeting of the

Associated Professional Sleep Societies, Boston, MA, June 9-13, 2012.

220. Schwab, ZJ, DelDonno, S, Weber, M, Kipman M, & **Killgore, WD**. Habitual caffeine consumption and cerebral gray matter volume. Abstract presented at the 26<sup>th</sup> Annual Meeting of the Associated Professional Sleep Societies, Boston, MA, June 9-13, 2012.
221. Schwab, ZJ, & **Killgore, WD**. Daytime sleepiness affects prefrontal regulation of food intake. Abstract presented at the 26<sup>th</sup> Annual Meeting of the Associated Professional Sleep Societies, Boston, MA, June 9-13, 2012.
222. **Killgore, WD**, Schwab, ZJ, DelDonno S, Kipman, M, Weber M, & Rauch, SL. Greater nocturnal sleep time is associated with increased default mode functional connectivity. Abstract presented at the 26<sup>th</sup> Annual Meeting of the Associated Professional Sleep Societies, Boston, MA, June 9-13, 2012.
223. **Killgore, WD**, Kamimori, GH, & Balkin, TJ. Caffeine improves efficiency of planning and sequencing abilities during sleep deprivation. Abstract presented at the 26<sup>th</sup> Annual Meeting of the Associated Professional Sleep Societies, Boston, MA, June 9-13, 2012.
224. Sneider, JT, **Killgore, WD**, Crowley, DJ, Cohen-Gilbert, JE, Schwab, ZJ, & Silveri, MM. Inhibitory capacity in emerging adult binge drinkers: Influence of Facial Cues. Abstract presented at the 35<sup>th</sup> Annual Scientific Meeting of the Research Society on Alcoholism, San Francisco, CA, June 23-27, 2012.
225. **Killgore WD**. Multimodal neuroimaging to predict cognitive resilience against sleep loss. Abstract presented at the DARPA Young Faculty Award 2012 Meeting, Arlington, VA, July 30-31, 2012. [*\*Winner Young Faculty Award in Neuroscience*]
226. Cohen-Gilbert, JE, **Killgore WD**, Crowley, DJ, Covell, MJ, Schwab, ZJ, Weiner, MR, Acharya, D, Sneider, JT, & Silveri, MM. Differential influence of safe versus threatening facial expressions on inhibitory control across adolescence and adulthood. Abstract presented at the Society for Neuroscience 2012 Meeting, New Orleans, LA, October 13-17, 2012.
227. Weber, M, DelDonno, S, Kipman M, Schwab, ZJ, & **Killgore WD**. Grey matter correlates of self-reported sleep duration. Abstract presented at the Harvard Division of Sleep Medicine Annual Poster Session, Boston, MA, September 27, 2012.
228. Weber, M, DelDonno, SR, Kipman, M, Preer, LA, Schwab ZJ, Weiner, MR, & **Killgore, WD**. The effect of morning bright light therapy on sleep, cognition and emotion following mild traumatic brain injury. Abstract presented at the 2012 Sleep Research Network Meeting, 22-23 October 2012, Bethesda, MD.
229. Sneider, JT, **Killgore, WD**, Crowley, DJ, Cohen-Gilbert, JE, Schwab, ZJ, & Silveri, MM. Inhibitory capacity in emerging adult binge drinkers: Influence of Facial Cues. Abstract presented at the Annual McLean Hospital Research Day, January 16, 2013.
230. Cohen-Gilbert, JE, **Killgore WD**, Crowley, DJ, Covell, MJ, Schwab, ZJ, Weiner, MR, Acharya, D, Sneider, JT, & Silveri, MM. Differential influence of safe versus threatening facial

expressions on inhibitory control across adolescence and adulthood. Abstract presented at the Annual McLean Hospital Research Day, January 16, 2013.

231. Tkachenko, O, Schwab, ZJ, Kipman, M, DelDonno, S, Gogel, H., Preer, L, & **Killgore, WD**. Smarter women need less sleep. Abstract presented at the Annual McLean Hospital Research Day, January 16, 2013.
232. DelDonno, S, Kipman, M, Schwab, ZJ, & **Killgore, WD**. The contributions of emotional intelligence and facial perception to social intuition. Abstract presented at the Annual McLean Hospital Research Day, January 16, 2013.
233. Kipman, M, Schwab, ZJ, DelDonno, S, Weber, M, Rauch, SL, & **Killgore, WD**. The neurocircuitry of impulsive behavior. Abstract presented at the Annual McLean Hospital Research Day, January 16, 2013.
234. Preer, LA, Tkachenko, O, Gogel, H, Schwab, ZJ, Kipman, M, DelDonno, SR, Weber, M, Webb, CA, & **Killgore, WD**. Emotional intelligence as a mediator of the association between anxiety sensitivity and anxiety symptoms. Abstract presented at the Annual McLean Hospital Research Day, January 16, 2013.
235. Gogel, H, DelDonno, S, Kipman M, Preer, LA, Schwab, ZJ, Tkachenko, O, & **Killgore, WD**. Validation of the Design Organization Test (DOT) in a healthy population. Abstract presented at the Annual McLean Hospital Research Day, January 16, 2013.
236. Brennan, BP, Schwab, ZS, Athey, AJ, Ryan, EM, Pope, HG, **Killgore, WD**, Jenike, MA, & Rauch, SL. A functional magnetic resonance imaging study of rostral anterior cingulate cortex activation in obsessive-compulsive disorder using an emotional counting stroop paradigm. Abstract presented at the Annual McLean Hospital Research Day, January 16, 2013.
237. Cohen-Gilbert, JE, Schwab, ZJ, **Killgore, WD**, Crowley, DJ, & Silveri MM. Influence of Binge Drinking on the Neural Correlates of Inhibitory Control during Emotional Distraction in Young Adults. Abstract presented at the 3<sup>rd</sup> International Conference on Applications of Neuroimaging to Alcoholism (ICANA-3), New Haven, CT, February 15-18, 2013.
238. Weber, M, & **Killgore, WD**. The interrelationship between ‘sleep credit’, emotional intelligence and mental health – a voxel-based morphometric study. Abstract presented at Harvard Medical School Psychiatry Research Day, April 10, 2013.
239. Cohen-Gilbert, JE, Schwab, ZJ, **Killgore, WD**, Crowley, DJ, & Silveri MM. Influence of Binge Drinking on the Neural Correlates of Inhibitory Control during Emotional Distraction in Young Adults. Abstract presented at Harvard Medical School Psychiatry Research Day, April 10, 2013.
240. Mundy, EA, Weber, M, Rauch, SL, **Killgore, WD**, & Rosso, IM. The relationship between subjective stress levels in childhood and anxiety as well as perceived stress as an adult. Abstract presented at Harvard Medical School Psychiatry Research Day, April 10, 2013.
241. Webb, CA, **Killgore, WD**, Britton, JC, Schwab, ZJ, Price, LM, Weiner, MR, Gold, AL, Rosso,

- IM, Simon, NM, Pollack, MH, & Rauch, SL. Comparing categorical versus dimensional predictors of functional response across three anxiety disorders. Abstract presented at the 68<sup>th</sup> Annual Meeting of the Society of Biological Psychiatry, San Francisco, CA, May 16-18, 2013.
242. Preer, LA, Tkachenko, O, Gogel, H, Schwab, ZJ, Kipman, M, DelDonno, SR, Weber, M, Webb, CA, Rauch, SL, & **Killgore, WD**. Linking Sleep Trouble to Neuroticism, Emotional Control, and Impulsiveness. Abstract presented at the 68<sup>th</sup> Annual Meeting of the Society of Biological Psychiatry, San Francisco, CA, May 16-18, 2013.
243. Preer, LA, Tkachenko, O, Gogel, H, Schwab, ZJ, Kipman, M, DelDonno, SR, Weber, M, Webb, CA, Rauch, SL, & **Killgore, WD**. Emotional Intelligence as a Mediator of the Association between Anxiety Sensitivity and Anxiety Symptoms. Abstract presented at the 68<sup>th</sup> Annual Meeting of the Society of Biological Psychiatry, San Francisco, CA, May 16-18, 2013.
244. Kipman, M, Schwab, ZJ, DelDonno, S, Weber, M, Rauch, SL, & **Killgore, WD**. The neurocircuitry of impulsive behavior. Abstract presented at the 68<sup>th</sup> Annual Meeting of the Society of Biological Psychiatry, San Francisco, CA, May 16-18, 2013.
245. Weber, M, **Killgore, WD**, Rosso, IM, Britton, JC, Simon, NM, Pollack, MH, & Rauch, SL. Gray matter correlates of posttraumatic stress disorder—A voxel based morphometry study. Abstract presented at the 68<sup>th</sup> Annual Meeting of the Society of Biological Psychiatry, San Francisco, CA, May 16-18, 2013.
246. Weber, M, Penetar, DM, Trksak, GH, DelDonno, SR, Kipman, M, Schwab, ZJ, & **Killgore, WD**. Morning blue wavelength light therapy improves sleep, cognition, emotion and brain function following mild traumatic brain injury. Abstract presented at the 68<sup>th</sup> Annual Meeting of the Society of Biological Psychiatry, San Francisco, CA, May 16-18, 2013.
247. Tkachenko, O, Schwab, ZJ, Kipman, M, Preer, LA, Gogel, H, DelDonno, SR, Weber, M, Webb, CA, Rauch, SL, & **Killgore, WD**. Difficulty in falling asleep and staying asleep linked to a sub-clinical increase in symptoms of psychopathology. Abstract presented at the 68<sup>th</sup> Annual Meeting of the Society of Biological Psychiatry, San Francisco, CA, May 16-18, 2013.
248. **Killgore, WD**, Schwab, ZJ, Kipman, M, DelDonno, SR, Rauch, SL, & Weber, M. Problems with sleep initiation and sleep maintenance correlate with functional connectivity among primary sensory cortices. Abstract presented at the 68<sup>th</sup> Annual Meeting of the Society of Biological Psychiatry, San Francisco, CA, May 16-18, 2013.
249. **Killgore, WD**, Schwab, ZJ, Kipman, M, DelDonno, SR, Rauch, SL, & Weber, M. A Couple of Hours Can Make a Difference: Self-Reported Sleep Correlates with Prefrontal-Amygdala Connectivity and Emotional Functioning. Abstract presented at the 68<sup>th</sup> Annual Meeting of the Society of Biological Psychiatry, San Francisco, CA, May 16-18, 2013.
250. Brennan, BP, Schwab, ZS, Athey, AJ, Ryan, EM, Pope, HG, **Killgore, WD**, Jenike, MA, & Rauch, SL. A functional magnetic resonance imaging study of rostral anterior cingulate cortex activation in obsessive-compulsive disorder using an emotional counting stroop paradigm. Abstract presented at the 68<sup>th</sup> Annual Meeting of the Society of Biological Psychiatry, San Francisco, CA, May 16-18, 2013.



251. Weber, M, & **Killgore, WD**. The interrelationship between ‘sleep credit’, emotional intelligence and mental health – a voxel-based morphometric study. Abstract presented at the SLEEP 2013 Annual Meeting, Baltimore, MD, June 1-5, 2013.
252. Weber, M, Penetar, DM, Trksak, GH, DelDonno, SR, Kipman, M, Schwab, ZJ, & **Killgore, WD**. Morning blue wavelength light therapy improves sleep, cognition, emotion and brain function following mild traumatic brain injury. Abstract presented at the SLEEP 2013 Annual Meeting, Baltimore, MD, June 1-5, 2013.
253. **Killgore, WD**, Schwab, ZJ, Kipman, M, DelDonno, SR, & Weber, M. Problems with Sleep Initiation and Sleep Maintenance Correlate with Functional Connectivity Among Primary Sensory Cortices. Abstract presented at the SLEEP 2013 Annual Meeting, Baltimore, MD, June 1-5, 2013.
254. **Killgore, WD**, Schwab, ZJ, Kipman, M, DelDonno, SR, & Weber, M. A Couple of Hours Can Make a Difference: Self-Reported Sleep Correlates with Prefrontal-Amygdala Connectivity and Emotional Functioning. Abstract presented at the SLEEP 2013 Annual Meeting, Baltimore, MD, June 1-5, 2013.
255. Tkachenko, O, Schwab, ZJ, Kipman, M, DelDonno, SR, Preer, LA, Gogel, H, Weber, M, Webb, CA, & **Killgore, WD**. Difficulty in falling asleep and staying asleep linked to a sub-clinical increase in symptoms of psychopathology. Abstract presented at the SLEEP 2013 Annual Meeting, Baltimore, MD, June 1-5, 2013.
256. Preer, LA, Tkachenko, O, Gogel, H, Schwab, ZJ, Kipman, M, DelDonno, SR, Weber, M, Webb, CA, & **Killgore, WD**. Linking Sleep Initiation Trouble to Neuroticism, Emotional Control, and Impulsiveness. Abstract presented at the SLEEP 2013 Annual Meeting, Baltimore, MD, June 1-5, 2013.
257. **Killgore, WD**. Sleep duration contributes to cortico-limbic functional connectivity, emotional functioning, & psychological health. Abstract presented at the 52<sup>nd</sup> Annual Meeting of the American College of Neuropsychopharmacology, Hollywood, FL, December 8-12, 2013.
258. Preer, L, Tkachenko, O, Gogel, H, Bark, JS, Kipman, M, Olson, EA, & **Killgore, WD**. The role of personality in sleep initiation problems. Abstract presented at the Annual McLean Hospital Research Day, January 22, 2014.
259. Demers, LA, Olson, EA, Weber, M, Divatia, S, Preer, L, & **Killgore, WD**. Paranoid traits are related to deficits in complex social decision-making and reduced superior temporal sulcus volume. Abstract presented at the Annual McLean Hospital Research Day, January 22, 2014.
260. Tkachenko, O, Weber, M, Gogel, H, & **Killgore, WD**. Predisposition towards unhealthy foods linked with increased gray matter in the cerebellum. Abstract presented at the Annual McLean Hospital Research Day, January 22, 2014.
261. Olson, EA, Weber, M, Tkachenko, O, & **Killgore, WD**. Daytime sleepiness is associated with decreased integration of remote outcomes on the IGT. Abstract presented at the Annual

McLean Hospital Research Day, January 22, 2014.

262. Cui, J, Tkachenko, O, & **Killgore, WD**. Can the activation of anterior cingulate predict the emotional suppression? An fMRI study with masked faces. Abstract presented at the Annual McLean Hospital Research Day, January 22, 2014.
263. Gogel, H, & **Killgore WDS**. A psychometric validation of the Design Organization Test (DOT) in a healthy sample. Abstract presented at the 42nd Annual Meeting of the International Neuropsychological Society, Seattle WA, February 12-15, 2014.
264. **Killgore, WD**, Kipman, M, Tkachenko, O, Gogel, H., Preer, L, Demers, LA, Divatia, SC, Olson, EA, & Weber, M. Predicting resilience against sleep loss with multi-modal neuroimaging. Abstract presented at the 42nd Annual Meeting of the International Neuropsychological Society, Seattle WA, February 12-15, 2014.
265. **Killgore, WD**, Weber, M, Bark, JS, Kipman, M, Gogel, H, Preer, L, Tkachenko, O, Demers, LA, Divatia, SC, & Olson, EA. Physical exercise correlates with hippocampal volume in healthy adults. Abstract presented at the 42nd Annual Meeting of the International Neuropsychological Society, Seattle WA, February 12-15, 2014.
266. **Killgore, WD**, Tkachenko, O, Weber, M, Kipman, M, Preer, L, Gogel, H, & Olson, EA. The association between sleep, functional connectivity, and emotional functioning. Abstract presented at the 42nd Annual Meeting of the International Neuropsychological Society, Seattle WA, February 12-15, 2014.
267. Preer, L, Tkachenko, O, Gogel, H, Bark, JS, Kipman, M, Olson, EA, & **Killgore, WD**. The role of personality in sleep initiation problems. Abstract presented at the 42nd Annual Meeting of the International Neuropsychological Society, Seattle WA, February 12-15, 2014.
268. Tkachenko, O, Weber, M, Olson, EA, Gogel, H, Preer, LA, Divatia, SC, Demers, LA, & **Killgore, WD**. Gray matter volume within the medial prefrontal cortex correlates with behavioral risk taking. Abstract presented at the 42nd Annual Meeting of the International Neuropsychological Society, Seattle WA, February 12-15, 2014.
269. Olson, EA, Weber, M, Bark JS, Demers L, Divatia, SC, Gogel, H, Kipman M, Preer, L, Tkachenko, O, & **Killgore, WD**. Sex differences in threat evaluation of emotionally neutral faces. Abstract presented at the 42nd Annual Meeting of the International Neuropsychological Society, Seattle WA, February 12-15, 2014.
270. Cui, J, Tkachenko, O, & **Killgore, WD**. Can the activation of anterior cingulate predict the emotional suppression? An fMRI study with masked faces. Abstract presented at the 36nd Annual Conference of the Anxiety Disorders Association of America, Chicago, IL, March 27-30, 2014.
271. Webb, CA, Weber, M, Mundy, EA, & **Killgore, WD**. Reduced gray matter volume in the anterior cingulate, orbitofrontal cortex and thalamus as a function of depressive symptoms: A voxel-based morphometric analysis. Abstract presented at the 36nd Annual Conference of the Anxiety Disorders Association of America, Chicago, IL, March 27-30, 2014.

272. Weber, M, Penetar, DM, Trksak, GH, Kipman, M, Tkachenko, O, Bark, JS, Jorgensen, AL, Rauch, SL, & **Killgore, WD**. Light therapy may improve sleep and facilitate recovery from mild traumatic brain injury. Abstract presented at the 10<sup>th</sup> World Congress on Brain Injury, San Francisco, CA, March 19-22, 2014.
273. Cui, J, Tkachenko, O, & **Killgore, WD**. Can the activation of anterior cingulate predict the emotional suppression? An fMRI study with masked faces. Abstract presented at the 21st Annual Meeting of the Cognitive Neuroscience Society, Boston, MA, April 5-8, 2014.
274. Divatia, S, Demers, LA, Preer, L, Olson, EA, Weber, M, & **Killgore, WD**. Advantageous decision making linked with increased gray matter volume in the ventromedial prefrontal cortex. Abstract presented at the 21st Annual Meeting of the Cognitive Neuroscience Society, Boston, MA, April 5-8, 2014.
275. Demers, LA, Olson, EA, Weber, M, Divatia, S, Preer, L, & **Killgore, WD**. Paranoid traits are related to deficits in complex social decision making and reduced superior temporal sulcus volume. Abstract presented at the 21st Annual Meeting of the Cognitive Neuroscience Society, Boston, MA, April 5-8, 2014.
276. Preer, LA, Weber, M, Tkachenko, O, Divatia, S, Demers, LA, Olson, EA, & **Killgore, WD**. Gray matter volume in the amygdala is associated with facial assessments of trustworthiness. Abstract presented at the 21st Annual Meeting of the Cognitive Neuroscience Society, Boston, MA, April 5-8, 2014.
277. Tkachenko, O, Weber, M, Gogel, H, & **Killgore, WD**. Predisposition towards unhealthy foods linked with increased gray matter volume in the cerebellum. Abstract presented at the 21st Annual Meeting of the Cognitive Neuroscience Society, Boston, MA, April 5-8, 2014.
278. Olson, EA, Weber, M, Gogel, H, & **Killgore, WD**. Daytime sleepiness is associated with decreased integration of remote outcomes on the IGT. Abstract presented at the 21st Annual Meeting of the Cognitive Neuroscience Society, Boston, MA, April 5-8, 2014.
279. Demers, LA, Preer, LA, Gogel, H, Olson, EA, Weber, M, & **Killgore, WD**. Left-hemifield bias on sad chimeric face task correlates with interpersonal emotional intelligence. Abstract presented at the 69th Annual Meeting of the Society of Biological Psychiatry, New York, NY, May 8-10, 2014.
280. Weber, M, **Killgore, WD**, Olson, EA, Rosso, IM, & Rauch, SL. Morphological brain network organization in relation to trauma and posttraumatic stress disorder. Abstract presented at the 69th Annual Meeting of the Society of Biological Psychiatry, New York, NY, May 8-10, 2014.
281. Divatia, S, Demers, LA, Preer, L, Gogel, H, Kipman, M, & **Killgore, WD**. Schizotypal and manic traits are associated with poorer perception of emotions in healthy individuals. Abstract presented at the 69th Annual Meeting of the Society of Biological Psychiatry, New York, NY, May 8-10, 2014.

282. **Killgore, WD**, Weber, M, Olson, EA, & Rauch, SL. Sleep reduction and functioning of the emotion regulation circuitry. Abstract presented at the 69th Annual Meeting of the Society of Biological Psychiatry, New York, NY, May 8-10, 2014. [*\*Blue Ribbon Finalist for Top Poster Award: Basic Neuroscience*]
283. Webb, CA, Weber, M, Mundy, EA, & **Killgore, WD**. Reduced gray matter volume in the anterior cingulate, orbitofrontal cortex and thalamus as a function of depressive symptoms: A voxel-based morphometric analysis. Abstract presented at the 69th Annual Meeting of the Society of Biological Psychiatry, New York, NY, May 8-10, 2014.
284. Marin MF, Song H, Landau AJ, Lasko NB, Foy Preer LA, Campbell A, Pace-Schott EF, **Killgore WD**, Orr SP, Pitman RK, Simon NM, Milad MR (2014). Psychophysiological and Neuroimaging Correlates of Fear Extinction Deficits Across Anxiety Disorders. Abstract presented at the 69th Annual Meeting of the Society of Biological Psychiatry, New York, NY, May 8-10, 2014.
285. **Killgore, WD**. The effects of sleep loss on food preference. Abstract presented at SLEEP 2014, Minneapolis, MN, May 31-June 4, 2014.
286. Weber, M, & **Killgore, WD**. Sleep habits reflect in functional brain network organization. Abstract presented at SLEEP 2014, Minneapolis, MN, May 31-June 4, 2014. [*\*2014 AASM Young Investigator Award, Honorable Mention*]
287. Freed, MC, Novak, LA, **Killgore, WD**, Koehlmoos, TP, Ginsberg, JP, Krupnick, J, Rauch S, Rizzo, A, Engle, CC. DoD IRB delays: Do they really matter? And if so, why and for whom? Abstract presented at the Military Health System Research Symposium, Fort Lauderdale, FL, August 18-21, 2014.
288. Freed, MC, Novak, LA, **Killgore, WD**, Koehlmoos, TP, Ginsberg, JP, Krupnick, J, Rauch S, Rizzo, A, Engle, CC. DoD IRB delays: Do they really matter? And if so, why and for whom? Abstract presented at the AMSUS Annual Meeting, Washington DC, December 2-5, 2014.
289. **Killgore, WD**, Demers, LA, Olson, EA, Rosso, IM, Webb, CA, & Rauch, SL. Anterior cingulate gyrus and sulcus thickness: A potential predictor of remission following internet-based cognitive behavioral therapy for major depressive disorder. Abstract presented at the 53<sup>rd</sup> Annual Meeting of the American College of Neuropsychopharmacology, Phoenix, AZ, December 7-11, 2014.
290. Olson, EA, Buchholz, J, Rosso, IM, **Killgore, WD**, Webb, CA, Gogel, H, & Rauch, SL. Internet-based cognitive behavioral therapy effects on symptom severity in major depressive disorder: preliminary results from a randomized controlled trial. Abstract presented at the 53<sup>rd</sup> Annual Meeting of the American College of Neuropsychopharmacology, Phoenix, AZ, December 7-11, 2014.
291. Brennan, B, Tkachenko, O, Schwab, Z, Ryan, E, Athey, A, Pope, H, Dougherty, D, Jenike, M, **Killgore, WD**, Hudson, J, Jensen, E, & Rauch SL. Abstract presented at the 53<sup>rd</sup> Annual Meeting of the American College of Neuropsychopharmacology, Phoenix, AZ, December 7-11, 2014.

292. Alkozei, A, Pisner, D, & **Killgore, WD**. Emotional intelligence is differentially correlated with prefrontal cortical responses to backward masked fearful and angry faces. Abstract presented at the 43<sup>rd</sup> Annual Meeting of the International Neuropsychological Society, Denver, CO, February 4-7, 2015.
293. Alkozei, A, Schwab, Z, & **Killgore, WD**. Looking for evil intent: Emotional intelligence and the use of socially relevant facial cues during an emotional decision making task. Abstract presented at the 43<sup>rd</sup> Annual Meeting of the International Neuropsychological Society, Denver, CO, February 4-7, 2015.
294. Shane, BR, Alkozei, A, & **Killgore, WD**. The contribution of general intelligence and emotional intelligence to the ability to appreciate humor. Abstract presented at the 43<sup>rd</sup> Annual Meeting of the International Neuropsychological Society, Denver, CO, February 4-7, 2015.
295. Markowski, SM, Alkozei, A, & **Killgore, WD**. Sleep onset latency and duration are associated with self-perceived invincibility. Abstract presented at the 43<sup>rd</sup> Annual Meeting of the International Neuropsychological Society, Denver, CO, February 4-7, 2015.
296. Pisner, D, Alkozei, A, & **Killgore, WD**. Visuospatial reasoning mediates the relationship between emotion recognition and emotional intelligence. Abstract presented at the 43<sup>rd</sup> Annual Meeting of the International Neuropsychological Society, Denver, CO, February 4-7, 2015.
297. Vanuk, JR, Fridman, A, Demers, LA, Divatia, S, & **Killgore, WD**. Engaging in meditation and internet based training as a means of enhancing emotional intelligence. Abstract presented at the 43<sup>rd</sup> Annual Meeting of the International Neuropsychological Society, Denver, CO, February 4-7, 2015.
298. Vanuk, JR, Divatia, S, Demers, LA, Markowski, SM, & **Killgore, WD**. Napping in conjunction with brief internet-based training as a means of enhancing emotional intelligence. Abstract presented at the 43<sup>rd</sup> Annual Meeting of the International Neuropsychological Society, Denver, CO, February 4-7, 2015.
299. Cui, J, Tkachenko, O, Gogel, H, Kipman, M, Preer, LA, Weber, M, Divatia, SC, Demers, LA, Olson, EA, Buchholz, JL, Bark, JS, Rosso, IM, Rauch, SL, & **Killgore, WD**. Fractional Anisotropy of frontoparietal connections predicts individual resistance to sleep deprivation. Abstract presented at the 43<sup>rd</sup> Annual Meeting of the International Neuropsychological Society, Denver, CO, February 4-7, 2015.
300. **Killgore, WD**, Olson, EA, Weber, M, Rauch, SL, & Nickerson, LD. Emotional intelligence is associated with coordinated resting state activity between emotion regulation and interoceptive experience networks. Abstract presented at the 43<sup>rd</sup> Annual Meeting of the International Neuropsychological Society, Denver, CO, February 4-7, 2015.
301. **Killgore, WD**, Demers, LA, Divatia, S, Kipman, M, Tkachenko, O, Weber, M, Preer, LA, Gogel, H, Olson, EA, Vanuk, JR, & Rauch, SL. Enhancing emotional intelligence via brief internet-based training. Abstract presented at the 43<sup>rd</sup> Annual Meeting of the International

Neuropsychological Society, Denver, CO, February 4-7, 2015.

302. Buchholz, JL, Rosso, IM, Olson, EA, **Killgore, WD**, Fukunaga, R, Webb, CA, & Rauch, SL. Internet-based cognitive behavioral therapy is associated with symptom reduction and cognitive restructuring in adults with major depressive disorder. Abstract presented at the Anxiety and Depression Conference, Miami, FL, April 9-12, 2015.
303. Alkozei, A, Pisner, D, Rauch, SL, & **Killgore, WD**. Emotional intelligence and subliminal presentations of social threat. Abstract presented at the 70<sup>th</sup> Annual Meeting of the Society of Biological Psychiatry, Toronto, Ontario, CA, May 14-16, 2015.
304. Shane, BR, Alkozei, A, Vanuk, JR, Weber, M, & **Killgore, WD**. The effect of bright light therapy for improving sleep among individuals with mild traumatic brain injury. Abstract presented at the 70<sup>th</sup> Annual Meeting of the Society of Biological Psychiatry, Toronto, Ontario, CA, May 14-16, 2015.
305. Vanuk, JR, Shane, BR, Alkozei, A, & **Killgore, WD**. Trait emotional intelligence is associated with greater resting state functional connectivity within the default mode and task positive networks. Abstract presented at the 70<sup>th</sup> Annual Meeting of the Society of Biological Psychiatry, Toronto, Ontario, CA, May 14-16, 2015.
306. Vanuk, JR, Fridman, A, Demers, LA, & **Killgore, WD**. Engaging in meditation and internet-based training as a means of enhancing emotional intelligence. Abstract presented at the 70<sup>th</sup> Annual Meeting of the Society of Biological Psychiatry, Toronto, Ontario, CA, May 14-16, 2015.
307. Pisner, D, Alkozei, A, & **Killgore, WD**. Trait emotional suppression is associated with decreased activation of the insula and thalamus in response to masked angry faces. Abstract presented at the 70<sup>th</sup> Annual Meeting of the Society of Biological Psychiatry, Toronto, Ontario, CA, May 14-16, 2015.
308. Markowski, SM, Alkozei, A, & **Killgore, WD**. The trait of neuroticism predicts neurocognitive performance in healthy individuals. Abstract presented at the 70<sup>th</sup> Annual Meeting of the Society of Biological Psychiatry, Toronto, Ontario, CA, May 14-16, 2015.
309. Buchholz, JL, Rosso, IM, **Killgore, WD**, Fukunaga, R, Olson, EA, Demers, LA, & Rauch, SL. Amygdala volume is associated with helplessness in adults with major depressive disorder (MDD). Abstract presented at the 70<sup>th</sup> Annual Meeting of the Society of Biological Psychiatry, Toronto, Ontario, CA, May 14-16, 2015.
310. Sneider, JT, **Killgore, WD**, Rauch, SL, Jensen, JE, & Silveri, MM. Sex differences in the associations between prefrontal GABA and resistance to sleep deprivation. Abstract presented at the 70<sup>th</sup> Annual Meeting of the Society of Biological Psychiatry, Toronto, Ontario, CA, May 14-16, 2015.
311. **Killgore, WD**, Rosso, IM, Rauch, SL, & Nickerson, LD. Emotional intelligence correlates with coordinated resting state activity between brain networks involved in emotion regulation and interoceptive experience. Abstract presented at the 70<sup>th</sup> Annual Meeting of the Society of

Biological Psychiatry, Toronto, Ontario, CA, May 14-16, 2015.

312. **Killgore, WD**, Demers, LA, Divatia, S, Rosso, IM, & Rauch, SL. Boosting Emotional intelligence with a brief internet-based program. Abstract presented at the 70<sup>th</sup> Annual Meeting of the Society of Biological Psychiatry, Toronto, Ontario, CA, May 14-16, 2015.
313. **Killgore, WD**, Vanuk, JR, Alkozei, A, Markowski, SM, Pisner, D, Shane, BR, Fridman, A, & Knight, SA. Greater daytime sleepiness correlates with altered thalamocortical connectivity. Abstract presented at the 70<sup>th</sup> Annual Meeting of the Society of Biological Psychiatry, Toronto, Ontario, CA, May 14-16, 2015.
314. **Killgore, WD**, Tkachenko, O, Gogel, H, Kipman, M, Sonis, LA, Divatia, SC, Demers, LA, Olson, EA, Buchholz, JL, Rosso, IM, & Rauch, SL. Activation of the ventral striatum predicts overeating during subsequent sleep loss. Abstract presented at the 70<sup>th</sup> Annual Meeting of the Society of Biological Psychiatry, Toronto, Ontario, CA, May 14-16, 2015.
315. Alkozei, A, Markowski, SM, Shane, BR, Rauch, SL, & **Killgore, WD**. Emotional resilience is not associated with increased emotional resistance to sleep deprivation. Abstract presented at the SLEEP 2015 Meeting, Seattle, WA, June 6-10, 2015.
316. Alkozei, A, Pisner, D, Markowski, SM, Rauch, SL, & **Killgore, WD**. The effect of emotional resilience on changes in appetite for high-sugary food during sleep loss. Abstract presented at the SLEEP 2015 Meeting, Seattle, WA, June 6-10, 2015.
317. Markowski, SM, Alkozei, A, Rauch, SL, & **Killgore, WD**. Self-perceived invincibility is associated with sleep onset latency and duration. Abstract presented at the SLEEP 2015 Meeting, Seattle, WA, June 6-10, 2015.
318. Markowski, SM, Alkozei, A, Rauch, SL, & **Killgore, WD**. Sex differences in the association between personality and resistance to sleep deprivation. Abstract presented at the SLEEP 2015 Meeting, Seattle, WA, June 6-10, 2015.
319. Shane, BR, Alkozei, A, & **Killgore, WD**. Physical exercise may contribute to vulnerability to sleep deprivation. Abstract presented at the SLEEP 2015 Meeting, Seattle, WA, June 6-10, 2015.
320. Cui, J, Tkachenko, O, Gogel, H, Kipman, M, Sonis, LA, Weber, M, Divatia, SC, Demers, LA, Olson, EA, Buchholz, JL, Rosso, IM, Rauch, SL, & **Killgore, WD**. Resistance to sleep deprivation involves greater functional activation and white matter connectivity within a fronto-parietal network. Abstract presented at the SLEEP 2015 Meeting, Seattle, WA, June 6-10, 2015.
321. Vanuk, JR, Rosso, IM, Rauch, SL, Alkozei, A, Markowski, SM, Pisner, D, Shane, BR, Fridman A, Knight, SA, & **Killgore, WD**. Daytime sleepiness is associated with altered thalamocortical connectivity. Abstract presented at the SLEEP 2015 Meeting, Seattle, WA, June 6-10, 2015.
322. Sneider, JT, Jensen JE, Silveri, MM, & **Killgore, WD**. Prefrontal GABA predicts resistance to

sleep deprivation. Abstract presented at the SLEEP 2015 Meeting, Seattle, WA, June 6-10, 2015.

323. **Killgore, WD**, Tkachenko, O, Gogel, H, Kipman, M, Sonis, LA, Weber, M, Divatia, SC, Demers, LA, Olson, EA, Buchholz, JL, Rosso, IM, & Rauch, SL. Individual differences in rested activation of the ventral striatum predict overeating during sleep deprivation. Abstract presented at the SLEEP 2015 Meeting, Seattle, WA, June 6-10, 2015.
324. **Killgore, WD**, Tkachenko, Rosso, IM, Rauch, SL, & Nickerson, LA. Multimodal neuroimaging to predict resistance to sleep deprivation. Abstract presented at the SLEEP 2015 Meeting, Seattle, WA, June 6-10, 2015.
325. Nickerson, LD & **Killgore, WD**. Resting state brain circuits underpinning a neurobiological model of Theory of Mind and Mentalizing. Abstract presented at the Organization for Human Brain Mapping Annual Meeting, 2015, Honolulu, HI, June 14-18, 2015.
326. Rosso, IM, Olson, EA, **Killgore WD**, Fukunaga, R, Webb, CA, & Rauch SL. A randomized trial of internet-based cognitive behavioral therapy for major depressive disorder. Abstract presented at the 54<sup>th</sup> Annual Meeting of the American College of Neuropsychopharmacology, Hollywood, FL, December 6-10, 2015.
327. Alkozei, A & **Killgore, WD**. Exposure to blue wavelength light is associated with increased dorsolateral prefrontal cortex responses during a working memory task. Abstract presented at the 44<sup>th</sup> Annual Meeting of the International Neuropsychological Society, Boston, MA, February 3-6, 2016.
328. Klimova, A, Pisner, D & **Killgore, WD**. Neural correlates of cognitive and emotional impairments in acute versus chronic mild traumatic brain injury: a diffusion tensor imaging study. Abstract presented at the 44<sup>th</sup> Annual Meeting of the International Neuropsychological Society, Boston, MA, February 3-6, 2016.
329. Markowski, S, Alkozei, A, & **Killgore, WD**. Greater neuroticism predicts higher performance in immediate memory, language, and attention in healthy individuals. Abstract presented at the 44<sup>th</sup> Annual Meeting of the International Neuropsychological Society, Boston, MA, February 3-6, 2016.
330. Alkozei, A & **Killgore, WD**. Exposure to blue wavelength light suppresses anterior cingulate cortex activation in response to uncertainty during anticipation of negative or positive stimuli. Abstract presented at the 44<sup>th</sup> Annual Meeting of the International Neuropsychological Society, Boston, MA, February 3-6, 2016.
331. Smith, R, Alkozei, A, Bao, J, & **Killgore, WD**. Successful goal-directed memory suppression is associated with increased inter-hemispheric coordination between right and left fronto-parietal control networks. Abstract presented at the 44<sup>th</sup> Annual Meeting of the International Neuropsychological Society, Boston, MA, February 3-6, 2016.
332. Singh, P, Fridman, A, Pisner, D, Singh, A, & **Killgore, WD**. A voxel based morphometric analysis of ventromedial prefrontal cortex volume related with executive function task



performance post mild traumatic injury. Abstract presented at the 44<sup>th</sup> Annual Meeting of the International Neuropsychological Society, Boston, MA, February 3-6, 2016.

- 333. **Killgore, WD.** Baseline responsiveness of the ventral striatum predicts overeating during subsequent sleep deprivation. Abstract presented at the 44<sup>th</sup> Annual Meeting of the International Neuropsychological Society, Boston, MA, February 3-6, 2016.
- 334. **Killgore, WD & Nickerson, LD.** Predicting resistance to sleep deprivation using multimodal neuroimaging. Abstract presented at the 44<sup>th</sup> Annual Meeting of the International Neuropsychological Society, Boston, MA, February 3-6, 2016.
- 335. **Sneider, J, Jensen, JE, Silveri, MM, & Killgore, WD.** Prefrontal GABA correlates with the ability to sustain vigilance during sleep deprivation. Abstract presented at the 44<sup>th</sup> Annual Meeting of the International Neuropsychological Society, Boston, MA, February 3-6, 2016.
- 336. **Buchholz, JL, Olson, EA, Fukunaga, R, Webb, CA, Killgore, WD, Rauch, SL, & Rosso, IM.** Expressive suppression is associated with greater lateral orbitofrontal cortex volume in adults with major depressive disorder. Abstract presented at the 44<sup>th</sup> Annual Meeting of the International Neuropsychological Society, Boston, MA, February 3-6, 2016.
- 337. **Fridman, A, Pisner, D, Singh, P, & Killgore, WD.** Gray matter volume in left medial prefrontal cortex is related to life satisfaction in individuals with mild traumatic brain injury. Abstract presented at the 44<sup>th</sup> Annual Meeting of the International Neuropsychological Society, Boston, MA, February 3-6, 2016.
- 338. **Singh, P, Pisner, D, Fridman, A, Roberts, S, & Killgore, WD.** Volumetric differences in gray matter in healthy versus overweight/obese individuals post mild traumatic brain injury: A voxel based morphometric study. Abstract presented at the 44<sup>th</sup> Annual Meeting of the International Neuropsychological Society, Boston, MA, February 3-6, 2016.
- 339. **Killgore, WD & Weber, M.** Blue wavelength light therapy reduces daytime sleepiness following mild traumatic brain injury. Abstract presented at the 44<sup>th</sup> Annual Meeting of the International Neuropsychological Society, Boston, MA, February 3-6, 2016.
- 340. **Killgore, WD, Weber, M, & Penetar, D.** Blue wavelength light therapy improves balance following mild traumatic brain injury. Abstract presented at the 44<sup>th</sup> Annual Meeting of the International Neuropsychological Society, Boston, MA, February 3-6, 2016.
- 341. **Pisner, D, Smith, R, Alkozei, A, Klimova, A, & Killgore, WD.** Highways of the emotional intellect: White matter microstructural correlates of an ability-based measure of emotional intelligence. Abstract presented at the 44<sup>th</sup> Annual Meeting of the International Neuropsychological Society, Boston, MA, February 3-6, 2016.
- 342. **Vanuk, JR, Smith, R, Knight, S, & Killgore, WD.** Resting RSA correlates with coordinated resting state activity between brain networks involved in emotion perception. Abstract presented at the 44<sup>th</sup> Annual Meeting of the International Neuropsychological Society, Boston, MA, February 3-6, 2016.

343. Vanuk, JR, Alkozei, A, Markowski, S, & **Killgore WD**. Greater resting state functional connectivity within the default mode and task positive networks is associated with trait emotional intelligence. Abstract presented at the 44<sup>th</sup> Annual Meeting of the International Neuropsychological Society, Boston, MA, February 3-6, 2016.
344. Fukunaga, R, Webb, CA, Olson, EA, **Killgore, WD**, Rauch, SL, & Rosso, IM. Reduced rostral anterior cingulate volume is associated with greater frequency of negative automatic thoughts in adults with major depressive disorder. Abstract presented at the 44<sup>th</sup> Annual Meeting of the International Neuropsychological Society, Boston, MA, February 3-6, 2016.
345. Olson, EA, Fukunaga, R., Webb, CA, Rosso, IM, **Killgore, WD**, & Rauch, SL. Delay discounting and anhedonia are independently associated with suicidal ideation in depression. Abstract presented at the 44<sup>th</sup> Annual Meeting of the International Neuropsychological Society, Boston, MA, February 3-6, 2016.
346. Pisner, D, Singh, P, Fridman, A, & **Killgore, WD**. Resilience following mild traumatic brain injury is associated with gray matter volume in the left precentral gyrus. Abstract presented at the 44<sup>th</sup> Annual Meeting of the International Neuropsychological Society, Boston, MA, February 3-6, 2016.
347. Sing, P, Fridman, A, Pisner, D, & **Killgore, WD**. Time dependent differences in gray matter volume in individuals post mild traumatic brain injury: A voxel based morphometric study. Abstract presented at the 44<sup>th</sup> Annual Meeting of the International Neuropsychological Society, Boston, MA, February 3-6, 2016.
348. Quan, M, Gruber, SA, Lukas, SE, Hill, KP, **Killgore, WD**, & Nickerson, LD. Altered functional connectivity within large-scale brain networks during a cognitive task in chronic marijuana smokers. Abstract presented at the Harvard Psychiatry Research Day, Boston, MA, March 23, 2016. [*\*Semi Finalist Poster: Harvard Medical School Mysell Award*]
349. Fukunaga, R, Webb, CA, Olson, EA, **Killgore, WD**, Rauch, SL, & Rosso, IM. Improvement in negative automatic thoughts as a mediator of symptom improvement in internet-based cognitive behavioral therapy for major depressive disorder. Abstract presented at the 2016 Meeting of the Anxiety and Depression Association of America, Philadelphia, PA, March 31-April 3, 2016.
350. Bernstein, AS, Pisner, D, Klimova, A, Umapathy, L, Do, L, Squire, S, **Killgore, WD**, & Trouard, T. Effects of multiband acceleration on high angular resolution diffusion imaging data collection, processing, and analysis. Abstract presented at the 24<sup>th</sup> Annual Meeting of the International Society for Magnetic Resonance in Medicine (ISMRM), Singapore, May 7-8, 2016.
351. Alkozei, A, Markowski, SM, Pisner, D, Fridman, A, Shane, BR, Vanuk, JR, Knight, SA, & **Killgore, WD**. Exposure to blue wavelength light reduces activation within the anterior cingulate cortex during anticipation of certain reward stimuli. Abstract presented at the 71<sup>st</sup> Annual Scientific Convention of the Society for Biological Psychiatry, Atlanta, GA, May 12-14, 2016.

352. Alkozei, A., Pisner, D, Markowski, SM, Vanuk, JR, Fridman, A, Shane, BR, Knight SA, & **Killgore, WD**. Increases in prefrontal activation after exposure to blue versus amber wavelength light during cognitive load. Abstract presented at the 71<sup>st</sup> Annual Scientific Convention of the Society for Biological Psychiatry, Atlanta, GA, May 12-14, 2016.
353. Pisner, DA, Smith, R, Alkozei, A, Klimova, A, Millan, M, & **Killgore, WD**. Highways of the emotional intellect: White matter microstructural correlates of an ability-based measure of emotional intelligence. Abstract presented at the 71<sup>st</sup> Annual Scientific Convention of the Society for Biological Psychiatry, Atlanta, GA, May 12-14, 2016.
354. Singh, P, Pisner, D, Fridman, A, Singh A, Millan, M, & **Killgore, WD**. A voxel based morphometric analysis of ventromedial prefrontal cortex volume related with executive function task performance post mild traumatic brain injury. Abstract presented at the 71<sup>st</sup> Annual Scientific Convention of the Society for Biological Psychiatry, Atlanta, GA, May 12-14, 2016.
355. Smith, R, Smith, C, Khodr, O, Nettles, M, Sanova, A, & **Killgore, WD**. Emotional working memory: A relatively unexplored aspect of emotional and cognitive ability. Abstract presented at the 71<sup>st</sup> Annual Scientific Convention of the Society for Biological Psychiatry, Atlanta, GA, May 12-14, 2016.
356. Smith, R, Nettles, M, Khodr, O, Sanova, A, Smith, C, Alkozei, A, & **Killgore, WD**. Conflict-related dorsomedial frontal activation during healthy food decisions is associated with increased cravings for high-fat foods. Abstract presented at the 71<sup>st</sup> Annual Scientific Convention of the Society for Biological Psychiatry, Atlanta, GA, May 12-14, 2016.
357. Smith, R, Sanova, A, Nettles, M, Khodr, O, Smith, C, Alkozei, A, Lane, RD, & **Killgore, WD**. Unwanted reminders: The effects of emotional memory suppression on later neuro-cognitive processing. Abstract presented at the 71<sup>st</sup> Annual Scientific Convention of the Society for Biological Psychiatry, Atlanta, GA, May 12-14, 2016.
358. **Killgore, WD**, Weber, M, Palmer, W, & Penetar, D. Blue wavelength light therapy improves balance following mild traumatic brain injury. Abstract presented at the 71<sup>st</sup> Annual Scientific Convention of the Society for Biological Psychiatry, Atlanta, GA, May 12-14, 2016.
359. **Killgore, WD**, Tkachenko, O, Palmer, W, & Rauch, SL. Default mode activation predicts vulnerability to sleep deprivation in domains of mood, sleepiness, and vigilance. Abstract presented at the 71<sup>st</sup> Annual Scientific Convention of the Society for Biological Psychiatry, Atlanta, GA, May 12-14, 2016.
360. Alkozei, A, Markowski, SM, Pisner, D, Fridman, A, Shane, BR, Vanuk, JR, Knight, SA, Grandner, MA, & **Killgore, WD**. Exposure to blue wavelength light reduces activation within the anterior cingulate cortex during anticipation of certain reward stimuli. Abstract presented at the 30<sup>th</sup> Annual Meeting of the Associated Professional Sleep Societies (SLEEP 2016), Denver, CO, June 11-15, 2016.
361. Alkozei, A, Pisner, D, Markowski, SM, Vanuk, JR, Fridman, A, Shane, BR, Knight, SA, Grandner, MA, & **Killgore, WD**. Exposure to blue wavelength light is associated with

increased dorsolateral prefrontal cortex responses and increases in response times during a working memory task. Abstract presented at the 30<sup>th</sup> Annual Meeting of the Associated Professional Sleep Societies (SLEEP 2016), Denver, CO, June 11-15, 2016.

362. Davis, B, Yang, R, **Killgore, WD**, Gallagher, RA, Carrazco, Alfonso-Miller, P, Gehrels, J, & Grandner, MA. Nightmares in a community sample: Prevalance and associations with daytime function independent of poor sleep quality and depression. Abstract presented at the 30<sup>th</sup> Annual Meeting of the Associated Professional Sleep Societies (SLEEP 2016), Denver, CO, June 11-15, 2016.
363. Fisseha, E, Havens, C, **Killgore, WD**, Gallagher, RA, Carrazco, N, Alfonso-Miller, P, Gehrels, J, & Grandner, MA. Sleep duration's important role in the relationship among difficulty concentrating, fatigue, stress, and depressed mood: Data from the SHADES study. Abstract presented at the 30<sup>th</sup> Annual Meeting of the Associated Professional Sleep Societies (SLEEP 2016), Denver, CO, June 11-15, 2016.
364. Graham, PM, Goldstein, M, David, BM, Perlis, ML, Perfect, MM, Frye, S, **Killgore, WD**, Carrazco, N, Alfonso-Miller, P, Gehrels, J, & Grandner, MA. Longitudinal analysis of sleep duration using actigraphy and sleep diary: Stability and agreement over 8-11 months. Abstract presented at the 30<sup>th</sup> Annual Meeting of the Associated Professional Sleep Societies (SLEEP 2016), Denver, CO, June 11-15, 2016.
365. Granados, K, Rojo-Wissar, DM, Chakravorty, S, Prather, A, Perfect, MM, Frye, S, **Killgore, WD**, Gallagher, RA, Carrazco, N, Alfonso-Miller, P, Gehrels, J, & Grandner, MA. Adverse childhood exposures associated with adult insomnia symptoms. Abstract presented at the 30<sup>th</sup> Annual Meeting of the Associated Professional Sleep Societies (SLEEP 2016), Denver, CO, June 11-15, 2016.
366. Grandner, MA, **Killgore, WD**, Khader, W, & Perlis, ML. Positive and negative mood ratings across 24-hours. Abstract presented at the 30<sup>th</sup> Annual Meeting of the Associated Professional Sleep Societies (SLEEP 2016), Denver, CO, June 11-15, 2016.
367. Hall, C, Forbush, S, Youngstedt, S, **Killgore, WD**, Barilla, H, Gehrels, J, Alfonso-Miller, P, Palmer, W, Carrazco, N, & Grandner, MA. Habitual sleep duration and health: A possible role for exercise. Abstract presented at the 30<sup>th</sup> Annual Meeting of the Associated Professional Sleep Societies (SLEEP 2016), Denver, CO, June 11-15, 2016.
368. Jackson, N, Patterson, F, Seixas, A, Jean-Louis, G, **Killgore, WD**, & Grandner, MA. Using big data to determine the social, behavioral, and environmental, determinants of sleep duration in the U.S. population: Application of a machine learning approach to data from approximately 700,000 Americans. Abstract presented at the 30<sup>th</sup> Annual Meeting of the Associated Professional Sleep Societies (SLEEP 2016), Denver, CO, June 11-15, 2016.
369. **Killgore, WD**, Tkachenko, O, Grandner, MA, & Rauch, SL. Default mode activation predicts vulnerability to sleep deprivation in the domains of mood, sleepiness, and vigilance. Abstract presented at the 30<sup>th</sup> Annual Meeting of the Associated Professional Sleep Societies (SLEEP 2016), Denver, CO, June 11-15, 2016.

370. **Killgore, WD**, Weber, M, Grandner, MA, & Penetar, DM. Blue wavelength light therapy improves balance following mild traumatic brain injury. Abstract presented at the 30<sup>th</sup> Annual Meeting of the Associated Professional Sleep Societies (SLEEP 2016), Denver, CO, June 11-15, 2016.
371. Knight, SA & Killgore, WD. Typical sleep duration is associated with constructive thinking patterns. Abstract presented at the 30<sup>th</sup> Annual Meeting of the Associated Professional Sleep Societies (SLEEP 2016), Denver, CO, June 11-15, 2016.
372. Kotzin, MD, Alkozei, A, Knight, SA, Grandner, MA, & **Killgore, WD**. The effects of trait gratitude on quality of sleep, intrusiveness, of pre-sleep cognitions, and daytime energy in healthy individuals. Abstract presented at the 30<sup>th</sup> Annual Meeting of the Associated Professional Sleep Societies (SLEEP 2016), Denver, CO, June 11-15, 2016.
373. Markowski, SM, Alkozei, A, McIntosh, MB, Grandner, MA, & **Killgore, WD**. Chronotype and risk-taking propensity. Abstract presented at the 30<sup>th</sup> Annual Meeting of the Associated Professional Sleep Societies (SLEEP 2016), Denver, CO, June 11-15, 2016.
374. McIntosh, MB, Markowski, SM, Grandner, MA, & **Killgore, WD**. Prior-night sleep duration is negatively associated with impulsivity in women. Abstract presented at the 30<sup>th</sup> Annual Meeting of the Associated Professional Sleep Societies (SLEEP 2016), Denver, CO, June 11-15, 2016.
375. Ocano, D, Jean-Louis, G, **Killgore, WD**, Gallagher, RA, Carrazco, N, Alfonso-Miller, P, Gehrels, J, & Grandner, MA. Sleep duration and decreased social support from family, friends, and significant other: Influence of insomnia and perceived stress level. Abstract presented at the 30<sup>th</sup> Annual Meeting of the Associated Professional Sleep Societies (SLEEP 2016), Denver, CO, June 11-15, 2016.
376. Okuagu, A, Perlis, ML, Ellis, JA, Prather, AA, **Killgore, WD**, Gallagher, RA, Carrazco, N, Alfonso-Miller, P, Gehrels, J, & Grandner, MA. Does thinking keep people awake? Or does it matter what they are thinking about? Self-directed cognitions associated with insomnia and insufficient sleep. Abstract presented at the 30<sup>th</sup> Annual Meeting of the Associated Professional Sleep Societies (SLEEP 2016), Denver, CO, June 11-15, 2016.
377. Olivier, K, Gallagher, RA, **Killgore, WD**, Carrazco, N, Alfonso-Miller, P, Gehrels, J, & Grandner, MA. Development and initial validation of the Assessment of Sleep Environment: A novel inventory for describing and quantifying the impact of environmental factors on sleep. Abstract presented at the 30<sup>th</sup> Annual Meeting of the Associated Professional Sleep Societies (SLEEP 2016), Denver, CO, June 11-15, 2016.
378. Paine, KN, Forbush, S, Ellis, J, Nowakowski, S, Newman-Smith, K, **Killgore, WD**, Gallagher, RA, Carrazco, N, Alfonso-Miller, P, Gehrels, J, & Grandner, MA. Sleep duration and satisfaction with life, health, finances and relationship. Abstract presented at the 30<sup>th</sup> Annual Meeting of the Associated Professional Sleep Societies (SLEEP 2016), Denver, CO, June 11-15, 2016.
379. Rhee, JU, Haynes, P, Chakravorty, S, Patterson, F, **Killgore, WD**, Gallagher, RA, Carrazco, N,

Alfonso-Miller, P, Gehrels, J, & Grandner, MA. Susceptibility to smoking during the day and its relationship with insomnia and sleep duration. Abstract presented at the 30<sup>th</sup> Annual Meeting of the Associated Professional Sleep Societies (SLEEP 2016), Denver, CO, June 11-15, 2016.

- 380. Roberts, SE, Singh, P, Grandner, MA, & **Killgore, WD**. Later wake up time and impulsivity. Abstract presented at the 30<sup>th</sup> Annual Meeting of the Associated Professional Sleep Societies (SLEEP 2016), Denver, CO, June 11-15, 2016.
- 381. Saccone, J, Davis, B, Chakravorty, S, **Killgore, WD**, Gallagher, RA, Carrazco, N, Alfonso-Miller, P, Gehrels, J, & Grandner, MA. Habitual caffeine use and motivation to consume caffeine: Associations with sleep duration, sleepiness, fatigue, and insomnia severity. Abstract presented at the 30<sup>th</sup> Annual Meeting of the Associated Professional Sleep Societies (SLEEP 2016), Denver, CO, June 11-15, 2016.
- 382. Singh, A, Fridman, A, Silveri, MM, Grandner, MA, & **Killgore, WD**. Medial prefrontal GABA predicts hunger ratings during sleep deprivation for men but not women. Abstract presented at the 30<sup>th</sup> Annual Meeting of the Associated Professional Sleep Societies (SLEEP 2016), Denver, CO, June 11-15, 2016.
- 383. Vanuk, JR, Alkozei, A, Smith, R, Pisner, D, Markowski, SM, Shane, BR, Fridman, A, Knight, SA, Grandner, MA, & **Killgore, WD**. Changes in heart rate variability due to light exposure predict frontoparietal connectivity. Abstract presented at the 30<sup>th</sup> Annual Meeting of the Associated Professional Sleep Societies (SLEEP 2016), Denver, CO, June 11-15, 2016.
- 384. Vanuk, JR, Alkozei, A, Knight, SA, Fridman, A, Markowski, SM, Pisner, D, Shane, BR, Grandner, MA, & **Killgore, WD**. The effects of light exposure on heart rate variability predict sleepiness and vigilance. Abstract presented at the 30<sup>th</sup> Annual Meeting of the Associated Professional Sleep Societies (SLEEP 2016), Denver, CO, June 11-15, 2016.
- 385. Warlick, C, Chakravorty, S, **Killgore, WD**, Gallagher, RA, Carrazco, N, Alfonso-Miller, P, Gehrels, J, & Grandner, MA. Timing of alcohol intake associated with insomnia symptoms. Abstract presented at the 30<sup>th</sup> Annual Meeting of the Associated Professional Sleep Societies (SLEEP 2016), Denver, CO, June 11-15, 2016.
- 386. Waugaman, DL, Markowski, SM, Alkozei, A, Grandner, MA, & **Killgore, WD**. Chronotype and Emotional Intelligence. Abstract presented at the 30<sup>th</sup> Annual Meeting of the Associated Professional Sleep Societies (SLEEP 2016), Denver, CO, June 11-15, 2016.
- 387. Weber, M, Grandner, MA, & **Killgore, WD**. Smaller gray matter volume of the visual cortex predicts vulnerability to sleep deprivation. Abstract presented at the 30<sup>th</sup> Annual Meeting of the Associated Professional Sleep Societies (SLEEP 2016), Denver, CO, June 11-15, 2016.
- 388. Weber, M, Grandner, MA, & **Killgore, WD**. Blue wavelength light therapy reduces daytime sleepiness following mild traumatic brain injury. Abstract presented at the 30<sup>th</sup> Annual Meeting of the Associated Professional Sleep Societies (SLEEP 2016), Denver, CO, June 11-15, 2016.

389. Yang, R, Ocano, D, Chakravorty, S, **Killgore, WD**, Gallagher, RA, Carrazco, N, Alfonso-Miller, P, Gehrels, J, & Grandner, MA. Relationship between insomnia and depression moderated by caffeine. Abstract presented at the 30<sup>th</sup> Annual Meeting of the Associated Professional Sleep Societies (SLEEP 2016), Denver, CO, June 11-15, 2016.
390. **Killgore, WD**, Vanuk, JR, Pisner, D, Penetar, DM, & Weber, M. Short wavelength light therapy facilitates recovery from mild traumatic brain injury. Abstract presented at the 2016 Military Health System Research Symposium (MHSRS), Orlando, FL, August 15-18, 2016.
391. **Killgore, WD**, Alkozei, A, Smith, R, Divatia, S, & Demers, L. Enhancing emotional intelligence skills with a brief internet-based program: A pilot study. Abstract presented at the 2016 Military Health System Research Symposium (MHSRS), Orlando, FL, August 15-18, 2016.
392. **Killgore, WD**, Rosso, IM, Olson, EA, Webb, CA, Fukunaga, R, Gogel, H, Buchholz, JL, & Rauch, SL. Efficacy of an internet-based cognitive behavior therapy program for major depression. Abstract presented at the 2016 Military Health System Research Symposium (MHSRS), Orlando, FL, August 15-18, 2016.
393. **Killgore, WD**, & Nickerson, LA. Linked analysis of multimodal neuroimaging identifies neural systems associated with the ability to resist sleep deprivation. Abstract presented at the 2016 Military Health System Research Symposium (MHSRS), Orlando, FL, August 15-18, 2016.
394. Vanuk, JR, Allen, JJB, & **Killgore, WD**. Heart rate variability during light exposure and subsequent network connectivity patterns. Abstract presented at the Annual Meeting of the Society for Psychophysiological Research, Minneapolis, MN, September 21-25, 2016
395. Rosso, IM, Olson, EA, Thomas, MO, Webb, CA, **Killgore, WD**, & Rauch, SL. Anterior cingulate cortex morphology predicts remission from major depression following internet-based cognitive behavior therapy. Abstract submitted for presentation at the 55<sup>th</sup> Annual Meeting of the American College of Neuropsychopharmacology, Hollywood, FL, December 4-8, 2016.
396. Franco, J, Millan, M, Shane, BR, Castellanos, A, **Killgore, WD**. Blue wavelength light therapy increases thalamic grey matter volume following mild traumatic brain injury. Abstract accepted for presentation at the 45<sup>th</sup> Annual Meeting of the International Neuropsychological Society, New Orleans, LA, February 1-4, 2017.
397. Alkozei, A, Smith, R, Demers, LA, Divatia, S, Weber, M, Berryhill, SM, & **Killgore, WD**. Emotional intelligence can be trained via an online training program and is associated with better performance on the IGT. Abstract accepted for oral platform presentation at the 45<sup>th</sup> Annual Meeting of the International Neuropsychological Society, New Orleans, LA, February 1-4, 2017.
398. Haberman, JT, Olson, EA, Webb, CA, **Killgore, WD**, Rauch, SL, & Rosso, IM. The relation between treatment expectancies and outcome in internet-based cognitive behavioral therapy for major depressive disorder. Abstract presented at the Association for Behavioral and Cognitive Therapies, New York, NY, October 27-30, 2016.

## **AWARDED GRANTS AND CONTRACTS**

### ***Completed***

- 2001-2003 fMRI of Unconscious Affect Processing in Adolescence.  
NIH, 1R03HD41542-01  
PI: **Killgore** (\$79,000.)
- 2003-2006 The Effects of Sleep-Loss and Stimulant Countermeasures on Judgment and Decision Making.  
U.S. Army Medical Research and Materiel Command (USAMRMC) Competitive Medical Research Proposal Program (CMRP); Intramural Funding,  
PI: **Killgore** (Total Award: \$1,345,000.)
- 2004-2005 Sleep/wake Schedules in 3ID Aviation Brigade Soldiers.  
Defense Advanced Research Projects Agency (DARPA)  
PI: **Killgore** (Total Award: \$60,000.)
- 2005-2006 Functional Neuroimaging Studies of Neural Processing Changes with Sleep and Sleep Deprivation.  
U.S. Army Medical Research and Materiel Command (USAMRMC); Intramural Funding Task Area C (Warfighter Judgment and Decision Making) Program Funding  
PI: **Killgore** (Total Award: \$219,400.)
- 2006-2007 Establishing Normative Data Sets for a Series of Tasks to Measure the Cognitive Effects of Operationally Relevant Stressors.  
U.S. Army Medical Research and Materiel Command (USAMRMC); Intramural Funding Task Area C (Warfighter Judgment and Decision Making) Program Funding,  
PI: **Killgore** (Total Award: \$154,000.)
- 2006-2007 Military Operational Medicine Research Program (MOM-RP), Development of the Sleep History and Readiness Predictor (SHARP).  
U.S. Army Medical Research and Materiel Command (USAMRMC); Intramural Funding  
PI: **Killgore** (Total Award: \$291,000.)
- 2009-2014 The Neurobiological Basis and Potential Modification of Emotional Intelligence through Affective Behavioral Training (W81XWH-09-1-0730).  
U.S. Army Medical Research and Materiel Command (USAMRMC),  
PI: **Killgore** (Total Award: \$551,961.)  
Major Goal: To identify the neurobiological basis of cognitive and emotional intelligence using functional and structural magnetic resonance imaging.



- 2011-2014 Effects of Bright Light Therapy on Sleep, Cognition, and Brain Function following Mild Traumatic Brain Injury (W81XWH-11-1-0056).  
U.S. Army Medical Research and Materiel Command (USAMRMC),  
PI: **Killgore** (Total Award: \$941,924)  
Major Goal: To evaluate the effectiveness of morning exposure to bright light as a treatment for improving in sleep patterns among individuals with post-concussive syndrome. Effects of improved sleep on recovery due to this treatment will be evaluated using neurocognitive testing as well as functional and structural neuroimaging.
- 2012-2014 Neural Mechanisms of Fear Extinction Across Anxiety Disorders  
NIH NIMH  
PI: Milad, M. Site Subcontract PI: **Killgore** (Subcontract Award: \$505,065)  
Major Goal: To examine the neurocircuitry involved in fear conditioning, extinction, and extinction recall across several major anxiety disorders.
- 2012-2014 Multimodal Neuroimaging to Predict Cognitive Resilience Against Sleep Loss  
Defense Advance Research Projects Agency (DARPA) Young Faculty Award in Neuroscience (D12AP00241)  
PI: **Killgore** (Total Award: \$445,531)  
Major Goal: To combine several neuroimaging techniques, including functional and structural magnetic resonance imaging, diffusion tensor imaging, and magnetic resonance spectroscopy to predict individual resilience to 24 hours of sleep deprivation.
- 2012-2015 Internet Based Cognitive Behavioral Therapy Effects on Depressive Cognitions and Brain function (W81XWH-12-1-0109).  
U.S. Army Medical Research and Materiel Command (USAMRMC),  
PI: Rauch, SL; Co-PI: **Killgore** (Total Award: \$1,646,045)  
Major Goal: To evaluate the effectiveness of an internet-based cognitive behavioral therapy treatment program on improving depressive symptoms, coping and resilience skills, cognitive processing and functional brain activation patterns within the prefrontal cortex.

### ***Current***

- 2012-2016 A Model for Predicting Cognitive and Emotional Health from Structural and Functional Neurocircuitry following Traumatic Brain Injury (W81WH-12-0386)  
Congressional Directed Medical Research Program (CDMRP), Psychological Health/Traumatic Brain Injury (PH/TBI) Research Program: Applied Neurotrauma Research Award.  
PI: **Killgore** (Total Award: \$2,272,098)  
Percent Effort: 25%  
Major Goal: To evaluate the relation between axonal damage and neurocognitive performance in patients with traumatic brain injury at multiple points over the recovery trajectory, in order to predict recovery.
- 2014-2017 Bright Light Therapy for Treatment of Sleep Problems following Mild TBI (W81XWH-14-1-0571).

Psychological Health and Traumatic Brain Injury Research Program (PH/TBI RP) Traumatic Brain Injury Research Award-Clinical Trial.

PI: **Killgore** (Total Award: \$1,853,921)

Percent Effort: 40%

Major Goal: To verify the effectiveness of morning exposure to bright light as a treatment for improving in sleep patterns, neurocognitive performance, brain function, and brain structure among individuals with a recent mild traumatic brain injury.

2014-2018 A Non-pharmacologic Method for Enhancing Sleep in PTSD (W81XWH-14-1-0570)

Military Operational Medicine Research Program (MOMRP) Joint Program Committee 5 (JPC-5), FY13 Basic and Applied Psychological Health Award (BAPHA)

PI: **Killgore** (Total Award: \$3,821,415)

Percent Effort: 35%

Major Goal: To evaluate the effectiveness of blue light exposure to modify sleep in PTSD and its effects on fear conditioning/extinction, symptom expression, and brain functioning.

2015 Effects of Blue Light on Melatonin Levels and EEG Power Density Spectrum

Arizona Area Health Education Centers (AHEC) Program

Co-PI: Alkozei, A.; Co-PI: **Killgore** (Total Award: \$4,373)

Percent Effort: 0%

Major Goal: Adjunctive intramural funding to add a melatonin collection to an ongoing study of the effects of blue wavelength light on alertness and brain function.

2014-2018 Refinement and Validation of a Military Emotional Intelligence Training Program (JW150005)

Joint Warfighter Medical Research Program 2015

PI: **Killgore** (Total Award: \$5,977,570)

Percent Effort: 45%

Major Goal: To develop and validate a new internet-based training program to enhance emotional intelligence capacities in military Service Members.

#### **LIST OF COLLABORATORS ON GRANTS AND PUBLICATIONS FROM LAST FIVE YEARS**

Acharya, D.

Buchholz, Jennifer L.

Alkozei, Anna

Capaldi, Vincent F.

Athey, A. J.

Castro, Carl A.

Baker, Justin. T.

Chosak, A.

Balkin, Thomas J.

Cohen-Gilbert, Julia E.

Bark, John S.

Conrad, Turner A.

Brennan, Brian P.

Covell, Michael J.

Britton, Jennifer C.

Crowley, David J.

Bruyere, J.

Cui, Jiaolong

Dagher, Joseph  
Dahlgren, Mary Kate  
Deckersbach, Thilo  
DelDonno, Sophie R.  
Demers, Lauren A.  
Dillon, Daniel G.  
Divatia, Shreya C.  
Dougherty, Darin  
Engle, Charles C.  
Estrada, Arthur  
Freed, Michael C.  
Fridman, Andrew  
Fukunaga, Rena  
Ginsberg, Jay P.  
Gogel, Hannah  
Gold, Andrea L.  
Gonenc, Atilla  
Gruber, Staci A.  
Grugle, Nancy, L.  
Guerrero, Melanie L.  
Hammeroff, Stuart  
Hartman, A. S.  
Hezel, D.  
Hoge, Charles W.  
Hudson, James I.  
Jenike, Michael A.  
Jensen, J. Eric  
Jorgensen, Alli L.  
Juelich, R. J.  
Kamimori, Gary H.  
Kamiya, T.  
Kaufmann, Marc  
Kawada, Y.  
Kelley, Amanda M.

Killgore, Desiree B.  
Kipman, Maia  
Kizielewicz, Jill  
Knight, Sara A.  
Koehlmoos, T. P.  
Krizan, Zlatan  
Krupnick, J.  
Lane, Richard  
Lasko, N. B.  
Laundau, A. J.  
Leibenluft, E.  
Makris, Nicos  
Marin, M. F.  
Markowski, Sarah M.  
Meloni, Edward G.  
Milad, Mohammed R  
Mundy, Elizabeth A.  
Nickerson, Lisa D.  
Novak, L.A.  
Olson, Elizabeth A.  
Orr, Scott P.  
Pace-Schott, Edward F.  
Papadimitriou, G.  
Pauls, D. L.  
Pechtel, Pia  
Penetar, David M.  
Pine, Daniel S.  
Pisner, Derek  
Pitman, R. K.  
Pizzagalli, Diego A.  
Pollack, M. H.  
Pope, Harrison G.  
Post, Alex  
Preer (Sonis), Lilly

Price, Lauren M.  
Racine, Megan T.  
Ragan, J.  
Raison, Charles L.  
Rauch, Scott L.  
Rauch, Shiela  
Reichardt, Rebecca M.  
Renshaw, Perry F.  
Rizzo, Albert (Skip)  
Rohan, Michael  
Ross, Amy J.  
Rosso, Isabelle M.  
Rupp, Tracy L.  
Ryan, E. M.  
Sagar, Kelly A.  
Schoenberg, Michael R.  
Schwab, Zachary J.  
Shane, Bradley R.  
Silveri, Marisa M.

Simon, Naomi M.  
Smith, Kacie L.  
Smith, Ryan S.  
Sneider, Jennifer T.  
Song, Christina H.  
Song, H.  
Steward, S. E.  
Thomas, Jennifer J.  
Tkachenko, Olga  
Trksak, George H.  
Vanuk, John R.  
Webb, Christian A.  
Weber, Mareen  
Weihs, Karen  
Weiner, Melissa R.  
White, C. N.  
Wilhelm, S.  
Yurgelun-Todd, Deborah, A.  
Zai, D.

#### **GRADUATE, POSTDOCTORAL, THESIS ADVISORS OR SPONSORS**

Steven W. Gangestad, Ph.D.—Undergraduate Senior Honors Thesis Advisor  
Lawrence Overby, III, Ph.D.—Masters Thesis Advisor  
Bill J. Locke, Ph.D.—Doctoral Thesis Advisor  
Keith A. Hawkins, Ph.D.—Doctoral Internship Advisor  
Russell L. Adams, Ph.D.—Postdoctoral Fellowship Advisor  
James G. Scott, Ph.D.—Postdoctoral Fellowship Advisor  
Guila Glosser, Ph.D.—Postdoctoral Fellowship Advisor  
Deborah A. Yurgelun-Todd, Ph.D.—Postdoctoral Fellowship Advisor

*This is a true and accurate statement of my activities and accomplishments. I understand that misrepresentation in securing promotion and tenure may lead to dismissal or suspension under ABOR Policy 6-201 J.1.b.*

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William D. “Scott” Killgore, Ph.D.